





# PUBLIC ROADS

A JOURNAL OF HIGHWAY RESEARCH



UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PUBLIC ROADS



VOL. 15, NO. 8



OCTOBER 1934



HIGHWAY USERS CONTRIBUTE LARGE SUMS TO PUBLIC REVENUE

---

---

# PUBLIC ROADS

▶▶▶ *A Journal of  
Highway Research*

*Issued by the*

UNITED STATES DEPARTMENT OF AGRICULTURE  
BUREAU OF PUBLIC ROADS

Volume 15, No. 8

October 1934

*The reports of research published in this magazine are necessarily qualified by the conditions of the tests from which the data are obtained. Whenever it is deemed possible to do so, generalizations are drawn from the results of the tests; and, unless this is done, the conclusions formulated must be considered as specifically pertinent only to described conditions*

## *In This Issue*

	Page
The Taxation of Motor Vehicles in 1932 . . . . .	185

THE BUREAU OF PUBLIC ROADS - - - - - Willard Building, Washington, D.C.  
REGIONAL HEADQUARTERS - - - - - Mark Sheldon Building, San Francisco, Calif.

▼

### DISTRICT OFFICES

- |  |   |
|--|---|
| DISTRICT No. 1. Oregon, Washington, and Montana.<br>Post Office Building, Portland, Oreg.                          | DISTRICT No. 7. Illinois, Indiana, Kentucky, and Michigan.<br>South Chicago Post Office Building, Chicago, Ill.                                       |
| DISTRICT No. 2. California, Arizona, and Nevada.<br>Mark Sheldon Building, 461 Market St., San Francisco, Calif.   | DISTRICT No. 8. Alabama, Georgia, Florida, Mississippi, South Carolina,<br>and Tennessee.<br>Federal Building, P.O. Box 60, Montgomery, Ala.          |
| DISTRICT No. 3. Colorado, New Mexico, and Wyoming.<br>237 Custom House, Nineteenth and Stout Sts., Denver, Colo.   | DISTRICT No. 9. Connecticut, Maine, Massachusetts, New Hampshire, New<br>Jersey, New York, Rhode Island, and Vermont.<br>Federal Building, Troy, N.Y. |
| DISTRICT No. 4. Minnesota, North Dakota, South Dakota, and Wisconsin.<br>907 Post Office Building, St. Paul, Minn. | DISTRICT No. 10. Delaware, Maryland, North Carolina, Ohio, Pennsylvania,<br>Virginia, and West Virginia.<br>Willard Building, Washington, D.C.        |
| DISTRICT No. 5. Iowa, Kansas, Missouri, and Nebraska.<br>Saunders-Kennedy Building, Omaha, Nebr.                   | DISTRICT No. 11. Alaska.<br>Room 419, Federal and Territorial Building, Juneau, Alaska.   |
| DISTRICT No. 6. Arkansas, Louisiana, Oklahoma, and Texas.<br>Old Post Office Building, Fort Worth, Tex.            | DISTRICT No. 12. Idaho and Utah.<br>Federal Building, Ogden, Utah   |

---

Because of the necessarily limited edition of this publication it is impossible to distribute it free to any person or institutions other than State and county officials actually engaged in planning or constructing public highways, instructors in highway engineering, and periodicals upon an exchange basis. At the present time additions to the free mailing list can be made only as vacancies occur. Those desiring to obtain PUBLIC ROADS can do so by sending \$1 per year (foreign subscription \$1.50), or 10 cents per single copy, to the Superintendent of Documents, United States Government Printing Office, Washington, D.C.

# THE TAXATION OF MOTOR VEHICLES IN 1932

DIGEST OF A REPORT RESULTING FROM A SPECIAL STUDY BY THE U.S. BUREAU OF PUBLIC ROADS

Reported by G. P. ST. CLAIR, Associate Highway Engineer

**D**URING the summer of 1933 a survey was inaugurated by the Bureau of Public Roads for the purpose of determining the total of all special taxes imposed on the owners of motor vehicles in the United States. The calendar year 1932 was the most recent year which could be studied. A large volume of data was gathered and the work of analysis was not completed until the summer of 1934. A full report of this project is in course of publication, but will not be available in the immediate future. This article is a digest of the essential information produced by the survey.<sup>1</sup>

The effort was made to have the survey as complete as possible, covering all classes of taxing jurisdictions. State taxation of motor vehicles has been adequately reported in past years in the annual compilations of State reports on registration, registration receipts, and gasoline taxes, published by the Bureau. Other agencies, including Government bodies, industrial organizations, and students of taxation, have published figures on the various kinds and amounts of motor-vehicle taxes. The present survey is the broadest in scope yet attempted, as it includes not only State taxes, but also Federal excise taxes, county and municipal taxes, personal-property taxes on motor vehicles imposed by State, county, and municipal jurisdictions, and public bridge tolls.

Only the public charges borne directly by the motor vehicle owner were included in the survey totals. Purposely excluded from the investigation were such indirect charges as automobile dealers' licenses, fines and penalties, real-property taxes on automotive property (factories, garages, truck and bus terminals, etc.), income taxes on motor-vehicle operating enterprises, State chain-store and retail-sales taxes applying to gasoline stations and dealers in automobiles and automotive equipment, and similar imposts which are not levied directly on the ownership and operation of motor vehicles.

<sup>1</sup> The survey was carried on under the joint supervision of H. S. Fairbank, Chief of the Division of Information, and E. W. James, Chief of the Division of Highway Transport. The work of organizing and directing the field force of statisticians during the summer of 1933 was conducted by H. H. Kelly, of The Division of Highway Transport, and Prof. J. Trueman Thompson, of the Johns Hopkins University. The analysis and compilation of the data were made by H. H. Kelly, A. C. Rose, G. P. St. Clair, L. A. Abbot, and L. S. Tuttle. The material on personal property taxation of motor vehicles was prepared by H. R. Briggs.

The field work was conducted by a force of statisticians, employed through 11 district offices of the Bureau and operating under detailed instructions prepared by the Washington office. The chief statistician in each State was usually a person employed in an administrative office of the State dealing with regulation of motor vehicles, a former employee, or other person thoroughly familiar with the State records.

The work of compiling the data on State taxation of motor vehicles involved a careful and detailed examination of the records of the motor-vehicle department and, in some cases, of other agencies, such as public service commissions regulating for-hire carriers. The work of obtaining data on county and municipal special taxes and personal-property taxes was more difficult, and, necessarily, the results were less complete. While much information was obtained by interviewing State tax officials and by examining the records of central accounting systems, the bulk of the material was derived from answers to questionnaires mailed to county and municipal officials, requesting specific information on local registration and taxation of vehicles.

In the survey as conducted no data were obtained on the payments by motorists of tolls on public bridges and ferries. In order to make the record of motor-vehicle taxation as complete as possible, it was decided to include such payments, and a short

study was made in the Washington office of available data on the subject.

## RESULTS OF SURVEY SUMMARIZED

The total payments of motor-vehicle taxes, Federal, State, and local, as reported in the 1932 survey, are shown in the tabulation given above. It will be observed that public bridge tolls and county and municipal fees and taxes are marked as incomplete, and that personal-property taxes are marked as approximate. Of these, all totals except that for personal-property taxes are undoubtedly less than the actual payments of such taxes in 1932. The replies to questionnaires on county and municipal taxes were incomplete, as was also the information obtained on the subject of bridge tolls. In the case of personal-property taxes a very

REGISTRATION AND TAXATION OF MOTOR VEHICLES IN 1932		
STATE FEES AND TAXES		
	Vehicles registered and tax-paid	Registration fees paid
<b>Registration:</b>		
Passenger cars, including taxicabs.....	20,836,362	\$214,725,478
Busses.....	49,452	3,416,697
Trucks and tractor trucks.....	3,229,315	71,204,768
Trailers and semitrailers.....	415,276	3,515,345
Motorcycles.....	89,197	326,889
<b>Total.....</b>	<b>24,619,602</b>	<b>293,189,177</b>
Special motor-vehicle carrier fees.....		5,230,792
State gasoline taxes.....		513,047,239
Operators' and chauffeurs' licenses.....		18,280,802
Miscellaneous fees and taxes.....		9,082,968
<b>All State fees and taxes.....</b>		<b>838,830,978</b>
ALL FEES AND TAXES		
Federal manufacturers' excise taxes.....		\$92,378,000
State fees and taxes.....		838,831,000
County fees and taxes (incomplete).....		1,703,000
Municipal fees and taxes (incomplete).....		14,158,000
Personal property taxes, all jurisdictions (approximate).....		35,880,000
Public bridge and ferry tolls (incomplete).....		18,200,000
<b>Grand total.....</b>		<b>1,001,150,000</b>

thorough study was conducted, and estimates, based on the best information which could be found, were made in cases where the data were not complete. For this reason it is believed that the total payments of personal-property taxes in 1932 were not in excess of the amount tabulated.

The number of vehicles (including motorcycles and trailers and semitrailers) reported by the States as registered and tax-paid in 1932 was 24,619,602. The total motor-vehicle tax payments recorded in the survey were slightly more than a billion dollars, or \$40.66 per vehicle.

Payments to the State governments, chiefly in the form of registration fees and gasoline taxes, constitute the great bulk of motor-vehicle tax payments. The 1932 total, as reported in the survey, amounted to \$838,830,978. In the reports submitted by the statisticians, registrations and payments of registration fees were classified by type of vehicle, class of service, and, in the case of busses, trucks and tractor trucks, and trailers and semitrailers, by size—either by rated capacity or by weight classifications. A similar break-down of payments of special fees by commercial carriers was

given in some States, but others failed to classify such payments completely.

In order to reduce the reported figures to a uniform scheme, so that national totals, averages, and percentages might be obtained, a system of approximations was adopted which involved conversions from gross, net, or chassis weight of vehicle to rated capacity and the classification of registered vehicles and corresponding payments in certain chosen capacity groups. It was also decided to estimate the payments of gasoline taxes by the different types, classes, and sizes of vehicles. A systematic method of approximation was adopted and applied to the reported payments of gasoline taxes in all the States. The methods used in this work are discussed later in the report.

#### STATE FEES AND TAXES SUMMARIZED

Table 1 gives the total number of vehicles of each type and class of service reported in the survey as registered and paying regular fees in 1932, together with corresponding payments of registration and special fees, and estimated gasoline tax payments. Publicly owned and tax-exempt vehicles, where separately reported, were excluded from the tabulation. Averages per vehi-

TABLE 1.—State taxes imposed on motor vehicles in 1932; national totals, averages, and percentages for vehicles of different types and classes of service

Type of vehicle and class of service	Number registered	Percentage distribution	Regular registration fees <sup>1</sup>			Estimated payments of gasoline taxes			Special fees and taxes <sup>2</sup>	All fees and taxes		
			Amount collected	Average per vehicle	Percentage distribution	Amount	Average per vehicle	Percentage distribution		Amount	Average per vehicle	Percentage distribution
Passenger cars <sup>3</sup>	20,759,140	84.32	\$213,357,330	\$10.28	72.89	\$375,082,015	\$18.07	73.11		\$588,439,345	\$28.35	72.51
Taxicabs <sup>4</sup>	77,222	.31	1,368,148	17.72	.47	4,682,742	60.64	.91	\$117,997	6,168,887	79.89	.76
Passenger cars and taxicabs	20,836,362	84.63	214,725,478	10.31	73.36	379,764,757	18.23	74.02	117,997	594,608,232	28.54	73.27
Busses:												
School <sup>5</sup>	9,813	.04	211,633	21.57	.07	384,393	39.17	.07		596,026	60.74	.08
Contract, including sight-seeing <sup>6</sup>	3,314	.01	157,395	47.49	.06	331,783	100.12	.07	17,372	506,550	152.85	.06
Public-carrier	36,325	.15	3,047,669	83.90	1.04	5,382,256	148.17	1.05	2,287,216	10,717,141	295.03	1.32
All busses	49,452	.20	3,416,697	69.09	1.17	6,098,432	123.32	1.19	2,304,588	11,819,717	239.01	1.46
Trucks and tractor trucks:												
Privately owned and operated <sup>7</sup>	3,144,704	12.78	68,113,536	21.66	23.27	121,046,779	38.49	23.60	1,886	189,162,201	60.15	23.31
Contract-carrier <sup>8</sup>	69,840	.28	2,174,537	31.14	.74	4,361,227	62.44	.85	<sup>9</sup> 1,112,015	<sup>9</sup> 7,647,779	108.35	.94
Common-carrier <sup>10</sup>	14,771	.06	486,474	32.93	.17	1,153,663	78.10	.22	<sup>9</sup> 1,107,187	<sup>9</sup> 2,747,324	183.49	.34
All trucks and tractor trucks	3,229,315	13.12	70,774,547	21.92	24.18	126,561,669	39.19	24.67	2,221,088	199,557,304	61.80	24.59
Trailers and semitrailers:												
Privately owned and operated <sup>11</sup>	406,431	1.65	3,134,711	7.71	1.07					3,134,711	7.71	.39
Contract-carrier <sup>12</sup>	5,008	.02	179,007	35.74	.06				132,315	311,322	62.16	.04
Common-carrier <sup>13</sup>	3,837	.02	131,041	34.15	.05				393,285	524,326	136.65	.06
All trailers and semitrailers	415,276	1.69	3,444,759	8.30	1.18				525,600	3,970,359	9.56	.49
Motorcycles	89,197	.36	326,889	3.66	.11	622,381	6.98	.12	20	949,290	10.64	.12
Undistributed fees <sup>14</sup>									562,306	562,306		.07
All vehicles	24,619,602	100.00	292,688,370	11.89	100.00	513,047,239	21.20	100.00	5,731,599	811,467,208	32.96	100.00
Miscellaneous fees and taxes:												
Operators' and chauffeurs' licenses										18,280,802		
Other fees <sup>15</sup>										9,082,968		
Total										27,363,770	1.11	
Grand total, all fees and taxes										838,830,978	34.07	

<sup>1</sup> In the case of contract and common carriers of property, registration fees in excess of those based on the rate charged private carriers have been deducted and included with special fees. Total payments of registration fees were \$293,189,177, as shown in the box on page 185.

<sup>2</sup> Includes \$500,807 in excess registration fees paid by contract and common carriers of property, \$2,459,783 in mileage, ton-mile, and passenger-mile taxes, \$1,323,413 in receipts taxes, and \$1,447,596 in other special fees, including franchise fees, privilege taxes, fees for certificates of convenience and necessity, etc.

<sup>3</sup> Includes taxicabs and other for-hire passenger cars in 20 States for which this item could not be segregated. Hearses and ambulances, where reported separately, have been included with passenger cars.

<sup>4</sup> Totals for 27 States and the District of Columbia. Includes livery cars, U-drive-it cars, and other for-hire passenger cars. In the case of California, taxicabs were included with light delivery trucks.

<sup>5</sup> Totals for 16 States. In other States either there were no tax-paid school busses or they were included with other registration classifications, chiefly public-carrier busses.

<sup>6</sup> Totals for 19 States and the District of Columbia. In other States contract and sight-seeing busses either were not reported or were included with other registration classifications, chiefly public-carrier busses.

<sup>7</sup> Includes contract carriers in 25 States and the District of Columbia and common carriers in 14 States and the District of Columbia, which did not report these classes separately.

<sup>8</sup> Totals for 23 States. (See footnotes 7 and 9.) Includes common carriers in 3 States (Arkansas, Ohio, and West Virginia) which reported these classes together.

<sup>9</sup> These items include payments of special fees to the amount of \$80,701 by contract carriers in Montana, Oklahoma, and South Dakota, and \$36,971 by common carriers in South Dakota, which were not segregated from privately owned and operated trucks. The numbers of these vehicles and their payments of registration fees and gasoline taxes are included with private trucks. Averages per vehicle, for the items noted, were based on the payments by the 69,840 contract carriers and 14,771 common carriers regularly listed.

<sup>10</sup> Totals for 30 States. (See footnotes 7, 8, and 9.) Massachusetts reported contract carriers, but no common carriers.

<sup>11</sup> Includes contract carriers in 24 States and the District of Columbia, and common carriers in 17 States and the District of Columbia, which did not report these classes separately. Oklahoma had no registration of trailers in 1932; in Kentucky full trailers were not permitted, and semitrailers were included with trucks.

<sup>12</sup> Totals for 20 States. (See footnote 11.) Includes common carriers in 2 States (Arkansas and Ohio) which reported these two classes together.

<sup>13</sup> Totals for 24 States. (See footnotes 11 and 12.) Massachusetts, North Dakota, and Vermont reported no common-carrier trailers or semitrailers.

<sup>14</sup> Special fees which could not be allocated to specific classes of vehicles by reasonable methods of approximation.

<sup>15</sup> Includes fees for reregistrations, transfers, certificates of title, temporary entry permits, nominal fees paid by publicly owned vehicles, etc.

ele and the percentage distributions of registrations and payments are also given. In this tabulation payments of registration fees by contract and common carriers of property in excess of those based on the rates charged private carriers have been deducted from registration fees and placed with special fees and taxes.

Examination of the percentages given in table 1 reveals the following facts:

1. The owners of passenger cars, which constituted 84.3 percent of all vehicles, paid 72.9 percent of the registration fees and 73.1 percent of the gasoline taxes.

2. Taxicabs, reported separately from passenger cars in 27 States and the District of Columbia, comprised 0.3 percent of the vehicles; they contributed 0.5 percent of the registration fees and 0.9 percent of the gasoline taxes.

3. Motor busses, which included 0.2 percent of the vehicles, contributed 1.2 percent of the registration-fee payments and 1.2 percent of the gasoline taxes.

4. Motor trucks and tractor trucks, comprising 13.1 percent of the vehicles, paid 24.2 percent of the registration fees and 24.7 percent of the gasoline taxes.

5. Trailers and semitrailers constituted 1.7 percent of the vehicles and paid 1.2 percent of the registration fees.

Motorcycles, constituting 0.4 percent of the vehicles, contributed 0.1 percent of the registration fees and 0.1 percent of the gasoline taxes.

Special fees to the amount of \$5,230,792 were collected from operators of vehicles for hire and, in a few States, from certain classes of private operators. These imposts took the form of mileage, ton-mile, or passenger-mile taxes, receipts taxes, special weight or capacity taxes, franchise fees or privilege taxes, permit fees, and fees for certificates of convenience and necessity. To this amount must be added \$500,807 in excess registration fees paid by for-hire carriers of property (fees in excess of those calculated on the private-carrier rate). If the special fees are added to the registration fees and gasoline taxes, it is found that busses contributed 1.5 percent and trucks and trailers 25.1 percent of all fees and taxes directly imposed on motor vehicles in 1932.

**AVERAGE PAYMENTS SHOW SHARP INCREASE WITH SIZE OF VEHICLE**

As the weight or capacity of vehicles increases there is, in general, a steady rise in the average fees paid. In table 2 the variation of average payments of registration fees, gasoline taxes, and all fees and taxes is shown for public-carrier busses, for all trucks and tractor trucks, and for all trailers and semitrailers. These are national averages for 1932, based on data obtained in the survey.

**CONCLUSIONS AND COMMENTS**

The complexity of the motor-vehicle tax situation in the United States makes it very difficult to draw any conclusions which are both definite and generally applicable. The following statements, however, are supported by the data gathered in this survey.

1. There is an extraordinary lack of uniformity among the States, both in the methods of motor-vehicle taxation and in the magnitudes of the rates charged. The greatest variation was found in the bases on which registration fees were charged, including gross weight, net weight, chassis weight, capacity, horsepower, value, and various combinations of these factors. The general adoption of a common basis for registration fees is desirable.

TABLE 2.—Average payments, in 1932, of registration fees, gasoline taxes, and all fees and taxes, by vehicles of different rated capacities

PUBLIC-CARRIER BUSES			
Rated capacity	Registration fees <sup>1</sup>	Gasoline taxes	All fees and taxes <sup>2</sup>
Passengers:			
7 or less.....	\$25.84	\$52.50	\$104.77
8 to 20.....	57.39	123.13	234.50
Over 20.....	99.20	170.26	329.98
ALL TRUCKS AND TRACTOR TRUCKS			
Tons:			
1½ and less.....	\$15.51	\$36.16	\$51.85
Over 1½ and less than 3.....	38.21	46.33	85.92
3 and less than 5.....	67.33	59.89	130.40
5.....	97.57	68.10	168.49
Over 5.....	113.89	81.12	199.60
ALL TRAILERS AND SEMITRAILERS			
Tons:			
1½ and less.....	\$3.34	-----	\$3.42
Over 1½ and less than 3.....	14.08	-----	15.63
3 and less than 5.....	36.46	-----	41.71
5.....	59.21	-----	69.32
Over 5.....	70.55	-----	92.35

<sup>1</sup> Excess registration fees paid by for-hire carriers of property were included in the calculation of these averages.

<sup>2</sup> Includes special fees.

2. The principle that registration fees should increase with the size of the vehicle, as measured by weight, carrying capacity, horsepower, or cost, is recognized in the laws of all States, the only exception being the District of Columbia, in which a uniform fee of \$1 is charged. There is great variety in the application of this principle; in some States the increase of registration fees with size is relatively moderate, while in a few the range is very wide, registration fees in excess of \$1,000 being charged against the heaviest vehicles.

3. There is a noticeable tendency for the taxation imposed on motor vehicles to be relatively high in those States in which the intensity of motor-vehicle ownership is low, as indicated by a relatively large number of persons per vehicle. This condition was particularly noted in the Southern States, where the mileage of roads to be improved and maintained is very large in relation to the number of motor vehicles registered.

4. The imposition of unusually high registration fees on heavy vehicles, particularly trucks, in a few States, combined with high gasoline taxes, has apparently discouraged the registration of such vehicles, with the result that the high rates were productive of little revenue in 1932.

5. Comparison of the number of heavy trucks registered in certain States with the existing mileage of high-type roads and particularly of portland cement concrete roads, in the same States, leads to the conclusion that such roads have been built primarily in response to the demands of traffic in general, rather than specifically to support heavy loads.

6. Approximately 9 percent of the revenues derived from State motor-vehicle and gasoline taxes in 1932 were diverted to uses not related to roads and streets. The principal items of diversion included payments to general funds, \$39,652,339; unemployment relief, \$19,546,456; and schools, \$14,522,113.

7. Fees and taxes imposed on motor vehicles by counties in 1932 were negligible in comparison with those imposed by other jurisdictions, the total reported

being less than \$2,000,000. Such taxes were found in only 5 States. Fees imposed by municipalities were found in 39 States, and the total amount reported was over \$14,000,000.

8. Personal-property taxes were imposed on motor vehicles by either State, county, or local authorities in 31 States and the District of Columbia, the estimated collections being in the neighborhood of \$36,000,000. Because of difficulties in assessment and collection the personal-property tax as ordinarily administered is not effectively applied to motor vehicles. Five States and the District of Columbia require that evidence of tax payment be presented before licenses are issued to vehicle owners, thus insuring full collection for all registered vehicles. Seventeen States, containing 46 percent of all registrations, exempted motor vehicles from taxation as personal property.

#### 1933 REGISTRATIONS AND PAYMENTS COMPARED WITH THOSE OF 1932

In table 3 a comparison is made between the payments by motor vehicles in 1932, as given by the survey (plus certain other items) and the data on State motor-vehicle and gasoline taxes for 1933, given in the annual tables published by the Bureau,<sup>2</sup> together with the 1933 payments of Federal excise taxes relating to motor vehicles. No data were obtained on payments in 1933 of county and municipal fees and taxes, personal-property taxes or public bridge tolls, and for this reason no total is given for 1933.

The data for the 2 years are not comparable in all respects because of differences in the manner of reporting; for example, eight States reported busses with trucks in 1933. In order to make the comparison as close as possible, certain modifications have been made in the manner of presenting the 1932 data. In the 1933 table special fees paid in lieu of registration fees in California, Maryland, and South Carolina were tabulated as registration fees. To conform with this procedure, similar payments in 1932 have been deducted from special fees and added to registration fees, the States concerned being those given above and West Virginia. Certain items have been added which were omitted from the 1932 survey totals because they were not regarded as direct taxes imposed on motor-vehicle owners. These include dealers' licenses, certain miscellaneous receipts of the motor-vehicle departments, including fines and penalties in a number of States, and miscellaneous receipts connected with the administration of the gasoline-tax laws. These additions were made in order that the tabulation for 1932 should conform with the published data for 1933.

In comparing vehicle registrations in the 2 years, we find that there was a small decrease in the total number registered, the greatest change being in passenger vehicles. Trailers show a considerable increase. Similar changes occurred in payments of registration fees, although motorcycles show an increase in registrations and a decrease in payments. There was a reduction of 0.9 percent in total registrations and of 8.0 percent in total payments of registration fees.

The relatively large decrease in payments of registration fees was caused by changes in the rates charged.

<sup>2</sup> Table G-1, State Gasoline Taxes, 1933, was published in PUBLIC ROADS, vol 15, no. 5, July 1934, and tables MV-1 and MV-2, giving State motor-vehicle registrations and fees were published in PUBLIC ROADS, vol. 15, no. 7, September 1934.

TABLE 3.—Comparison of motor-vehicle tax payments in 1932 and 1933

Item	1932	1933	Increase or decrease in 1933
<b>Vehicles registered:</b>			
Passenger vehicles <sup>1</sup> .....	20,885,814	20,600,543	-285,271
Trucks and tractor trucks.....	3,229,315	3,226,747	-2,568
Trailers and semitrailers.....	415,276	472,789	+57,513
Motorcycles.....	89,197	91,987	+2,790
All vehicles.....	24,619,602	24,392,066	-227,536
<b>Registration fees:<sup>3</sup></b>			
Passenger vehicles <sup>1</sup> .....	\$218,907,499	\$195,841,695	-\$23,065,804
Trucks and tractor trucks.....	71,444,038	70,298,260	-1,145,778
Trailers and semitrailers.....	3,682,872	4,298,007	+615,135
Motorcycles.....	326,859	320,853	-6,036
All vehicles.....	294,361,298	270,758,815	-23,602,483
Special taxes paid by commercial carriers <sup>4</sup> .....	4,058,671	5,398,154	+1,339,483
Operators' and chauffeurs' licenses.....	18,280,802	18,075,282	-205,520
Certificates of title.....	4,340,239	3,507,984	-832,255
Dealers' licenses and plates <sup>5</sup> .....	1,913,977	1,596,647	-317,330
<b>Miscellaneous fees:</b>			
Included in 1932 survey.....	4,742,729		
Not included in 1932 survey.....	3,020,457	8,755,337	+992,151
State gasoline taxes <sup>6</sup> .....	514,138,900	519,403,450	+5,264,550
All State fees and taxes.....	844,857,073	827,495,669	-17,361,404
County fees and taxes (incomplete).....	1,703,455		
Municipal fees and taxes (incomplete).....	14,157,822		
Personal-property taxes (estimated).....	35,880,000		
Federal excise taxes <sup>7</sup> .....	92,377,998	244,825,000	+152,447,002
Public-bridge and ferry tolls (incomplete).....	18,199,424		
All fees and taxes.....	1,007,175,772		+135,085,598

<sup>1</sup> Includes private passenger cars, taxicabs and other cars for hire, and busses.

<sup>2</sup> Busses registered with trucks in eight States.

<sup>3</sup> Includes special fees (receipts taxes, ton-mile taxes, and passenger-mile taxes) paid by common-carrier trucks and trailers and public-carrier busses in lieu of registration fees. Amounts: In 1932, \$1,172,121 paid in California, Maryland, South Carolina, and West Virginia; in 1933, \$1,033,931 paid in California, Maryland, and South Carolina.

<sup>4</sup> Special taxes paid in lieu of registration fees deducted. The 1933 figures are incomplete, as a number of States imposing special taxes failed to report them.

<sup>5</sup> Not included in 1932 survey total.

<sup>6</sup> Includes item "other receipts under tax law", \$1,091,661 in 1932, and \$1,207,738 in 1933. This item was not included in the 1932 survey total.

<sup>7</sup> Includes Federal excise taxes on gasoline, lubricating oil, tires and inner tubes, automobiles, motorcycles and trucks, and parts and accessories. Deductions made to allow for nonmotor-vehicle use of gasoline and oil.

Drastic reductions in the rates of registration fees were made in Arkansas, Georgia, Kansas, Minnesota, Nebraska, and South Dakota, and moderate reductions in a number of other States.

There was an increase in the payments of special fees by commercial carriers. This was caused partly by increased revenues from existing taxes and partly by the fact that the number of States regulating and taxing for-hire operations was increased, Maine and New Hampshire having enacted laws effective in 1933. There were also changes in existing laws and taxes relative to such operations in a few States.

The collections of Federal excise taxes on motor vehicles were much greater in 1933 than in 1932. The taxes were in effect only for slightly more than 6 months in 1932; and the tax on gasoline was increased from 1 cent to 1½ cents per gallon, effective June 17, 1933, reverting to 1 cent on January 1, 1934.

It has been pointed out that the reported figures for county and municipal taxes on motor vehicles in 1932 and for public-bridge tolls are incomplete, while that for personal-property taxes is an approximation believed to be nearly correct. There is no reason to believe that there was a decrease in these items for which no data were obtained in 1933. If we assume for the purpose of comparison that they were the same in both years, we find that the payments of motor-vehicle taxes in 1933 exceeded those of 1932 by more than \$135,000,000.

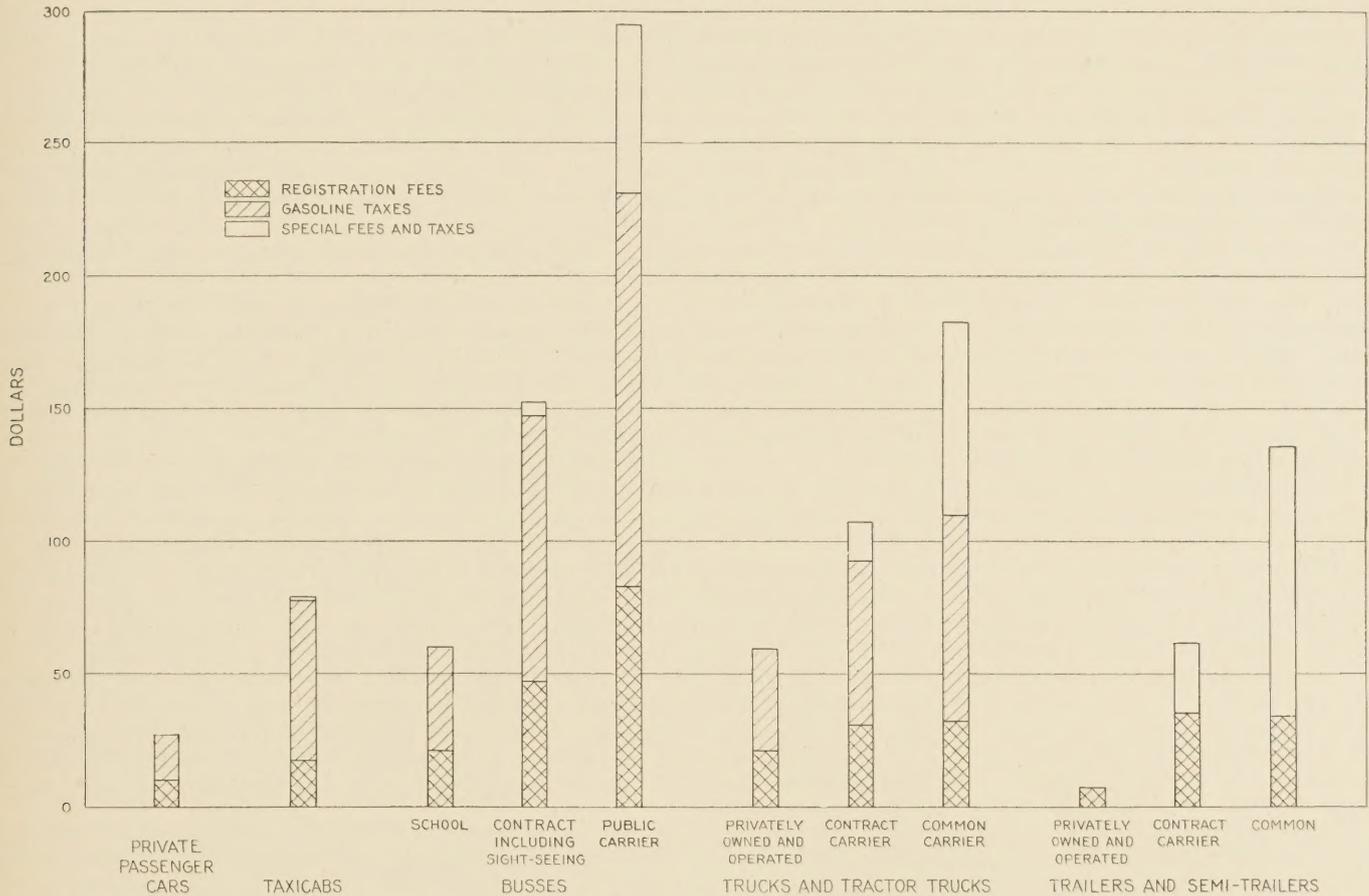
STATE FEES AND TAXES

METHOD OF ANALYSIS DESCRIBED

The diverse character of the reports submitted for the 48 States and the District of Columbia imposed a difficult problem of analysis. The object was to reduce all the reports to a uniform basis, in order to obtain comparable figures for each State and to assemble the data in the form of national statistics for different types, classes, and sizes of vehicles. In order to do this it was necessary to make use of certain systematic approximations. The methods used are discussed in detail in the complete report and can only be described briefly here.

*Uniform classification of registrations and fees.*—The first of these approximations was occasioned by the necessity of tabulating vehicles of different sizes according to a uniform scheme. It was decided that rated

In the case of those States which reported vehicles by gross, net, or chassis weight, it was necessary to make conversions into equivalent rated capacity. There is, of course, a considerable range in the net weights of trucks of a given capacity, and also in the gross loads for which, under a given law, they may be taxed. The effort was made, by a study of existing records and by consultation with representatives of the industry, to develop relations between weight and capacity which would represent average conditions, and would, therefore, give a reasonably accurate distribution of vehicles by capacity in those States which reported a weight classification. As an example, the conversion table developed for trucks is given in condensed form in table 4.



COMPARISON OF AVERAGE PAYMENTS OF STATE FEES AND TAXES IN 1932 BY VEHICLES OF DIFFERENT TYPES AND CLASSES OF SERVICE.

capacity rather than gross or net weight should be the basis of classification. For busses the following grouping by passenger-seating capacity was adopted:

- 7 or less
- 8 to 20
- Over 20

Trucks, tractor trucks and trailers and semitrailers were arranged in the following groups according to rated capacity in tons:

- 1½ or less
- Over 1½ and less than 3
- 3 and less than 5
- 5
- Over 5

A considerable number of the States which reported trucks and trailers according to rated capacity listed them by ton or half-ton groups, or otherwise in such a manner that both the numbers registered and the fees paid could be assembled in the five capacity groups or "brackets" adopted as the basis of classification. Others, however, reported capacity groups which were inconsistent with the chosen scheme. To take care of these cases it was necessary to devise methods of breaking down and rearranging both numbers registered and fees paid. The methods used in grouping the numbers registered were based on certain general relations between the numbers of vehicles of each tonnage, or of each capacity group, determined by analysis of the data for those States which reported trucks and

TABLE 4.—Approximate relations between manufacturers' rated capacity, chassis weight, net weight, and gross laden weight of trucks<sup>1</sup>

Manufacturers' rated capacity (tons)	Net weight		Gross weight  Pounds
	Chassis only	Chassis and body	
	Pounds	Pounds	
1	3,000	4,000	6,000
2	4,000	5,600	9,600
3	6,000	8,200	14,200
4	7,600	10,000	18,000
5	9,000	11,680	21,680
7	12,000	15,200	29,200
10	14,000	18,000	38,000

<sup>1</sup> Condensed from full table given in complete report.

trailers by separate tonnages or by capacity groups consistent with those adopted.

In apportioning the fees paid it was necessary to adopt a method consistent with the scheme of rates imposed by the State. In the case of those States where a flat fee was charged each of the tonnage groups separately reported, it was only necessary to make the break-down of fees proportional to the break-down of registrations. In the case of those States which imposed registration fees directly proportional to the weight of the vehicle, it was necessary to take account of this variation in the breakdown of fees.

In the work of arranging vehicles and their fees in uniform classifications two rigid requirements were set: (1) The resulting distribution must be entirely consistent with the original data; (2) the distribution must also, within the limits set by the first requirement, be a reasonable or plausible one, conforming as closely as possible to the national trends. In most States there was surprisingly little room for guesswork if both these requirements were to be fulfilled.

Little difficulty was experienced in arranging busses by passenger capacity; conversions from weight groupings were necessary only in a few States.

*Estimate of motor-fuel tax payments.*—Any attempt to investigate the payments of fees and taxes by different classes and sizes of motor vehicles would be very incomplete without some sort of estimate of the distribution of gasoline tax payments among the several groups. It was decided, therefore, to make certain assumptions regarding the annual mileage traveled and the rate of fuel consumption for each type of vehicle, class of service, and capacity group. The table "State Gasoline Taxes—1932", published by the Bureau, gives for each State the net tax earning and also the total gallons taxed. The procedure adopted was to compute, for each State, the total gallons consumed by all vehicles registered and tax-paid in each type, class, and capacity group, according to the assumptions made regarding annual mileage and rate of fuel consumption. The total gallonage thus obtained was then corrected by a factor to equal the taxed gallonage reported by that State, and the same factor was applied to all the individual items of gallonage. The corrected items were then multiplied by the tax rate to estimate the amounts paid by each type, class, and capacity group, the summation of these amounts equaling the total gasoline-tax earnings in that State in 1932.

The assumptions made regarding average annual mileage and average rates of gasoline consumption are given in table 5. It is not to be supposed that these assumed values are arbitrary. They were arrived at as a result of a study of available data on the subject, and will be fully discussed in the complete report. The fact that, for each State, the computed gallonages

were adjusted so as to add up to the total taxed gallonage tends to make the individual State figures more nearly correct than the assumed average values.

*Allocation of special fees.*—In every State but one, payments of registration fees were listed in the same detail as were the numbers of vehicles registered. Such was not the case with the special fees paid by for-hire carriers. Although many of the States listed such payments in detail by weight or capacity groups, there were a considerable number which reported only totals for a given group of vehicles, such as common-carrier trucks or public-carrier busses, and a few which listed their special fees in even less detail. In order to give as complete a picture as possible of the payments by vehicles in each capacity group, it was decided to allocate payments of special fees in all cases where a reasonable basis could be found for making such a distribution.

In general, ton-mile taxes were allocated in proportion to the rated capacities of the vehicles concerned; this procedure is in line with the assumption of the same average annual mileage for all trucks in a given class of service, regardless of capacity. Similarly, passenger-mile taxes were allocated in proportion to seating capacity, with the exception that busses of seven passengers or less were given a weighting of 0.8, to allow for their assumed annual mileage of 20,000 as compared with 25,000 for busses of more than 7-passenger capacity.

A number of States impose taxes on the basis of miles traveled, the rate generally increasing with the carrying capacity. In most of these cases the amounts paid were given in detail; where totals only were given, the allocations were made in proportion to the numbers of vehicles and the rates per mile.

Receipts taxes were also allocated in proportion to carrying capacity. The reason for this procedure is not so plain as it is in the case of ton-mile or passenger-mile taxes. However, if annual mileage is assumed to be independent of capacity, then gross tonnage hauled may be taken as proportional to capacity; and, in the absence of data to the contrary, gross receipts may in turn be assumed proportional to gross tonnage.

States which imposed privilege taxes or franchise fees on a weight or capacity basis generally gave the receipts from such imposts in detail. Miscellaneous fees yielding small returns, such as fees for certificates of necessity, permit fees, application fees, etc., were

TABLE 5.—Constants used in the computation of estimated consumption of motor fuel by motor vehicles of different types, classes of service, and rated capacities

Type of vehicle and class of service	Rated capacity	Assumed rate of consumption of motor fuel	Assumed average annual travel	Annual consumption per vehicle
	<i>Passengers</i>	<i>Miles per gallon</i>	<i>Miles</i>	<i>Gallons</i>
Passenger cars	.....	14.0	7,000	500
Taxis	.....	14.0	25,000	1,786
Motorcycles	.....	35.5	7,000	197
Busses:				
School	7 or less	14.0	10,000	714
	8 to 20, inclusive	10.0		
	Over 20	6.9		
	7 or less	14.0	20,000	1,456
Commercial	8 to 20, inclusive	8.0	25,000	3,128
	Over 20	5.0	25,000	5,000
	<i>Tons</i>			
Trucks	1½ and less	10.3	10,000	973
	Over 1½ and less than 3	7.6		
	3 and less than 5	6.0		
	5	4.9		
	Over 5	4.0		

<sup>1</sup> For contract, and common-carrier trucks an annual travel of 15,000 miles was assumed; for tractor trucks, 20,000 miles.

generally allocated in proportion to the numbers of vehicles.

The foregoing discussion of the methods used in analyzing and compiling the State data brings out the fact that the original reports, as submitted by the Bureau's statistician in each State, have been considerably modified in order that the material in them might be presented in a conventionalized form. All tabulations based on these modifications must be recognized as derived data. The primary data will be published in the complete report, and the opportunity will exist for any investigator to make use of any portion of the original data and obtain his own results, with the aid of such additional material as may be available. A special study of the conditions in any given State would, no doubt, make it possible to determine more accurately the payments made by vehicles of different classes and sizes in that State. It is believed, however, that the material as given presents a reasonable and accurate picture of motor-vehicle taxation in the United States in 1932, and that the figures for the individual States are as near the truth as could be obtained without extension of the Bureau's investigation beyond practicable limits.

The method of analysis described in the preceding paragraphs resulted in a complete table for each State, giving, so far as the original data permitted, the number of registered vehicles of each type, class, and capacity group, and the corresponding payments of registration fees, gasoline taxes, and special fees and taxes, according to the systematic scheme which was adopted. From these State tables national totals, averages, and percentages, such as are given in tables 1 and 2, were computed. More detailed presentation of the national figures is given in the following pages, in which payments by the major types and classes of vehicles are taken up in turn.

It is impossible to give the detailed figures for the individual States in this short digest. However, tables 13, 14, 15, and 16 appearing at the end of the section dealing with State taxes, give for each State the essential data regarding registrations and payments of registration fees, special fees and taxes, and miscellaneous fees. These tables give information for each type of vehicle and class of service, but do not give a break-down by capacity groups.

ITEMS NOT CLASSIFIED OR ALLOCATED

The effort to reduce all data reported by the States to a uniform classification was not entirely successful. In a number of States there were items which could not by any reasonable approximation be made to fit into the general scheme. Since these items continually appear in different steps of the analysis it is thought best to discuss them at this point.

*Vehicles not classified by capacity.*—In cases where the bulk of vehicles in a given group were classified by weight or capacity, but a small remainder were given without classification, the practice was adopted of making an approximate distribution of the unclassified vehicles, generally in proportion to those classified.

There were, however, some cases where an entire group of vehicles was unclassified. Under these circumstances there was no reasonable basis for assuming a distribution by capacity. In order to account for the gasoline consumed and the gasoline taxes paid by vehicles not classified, estimates were made on the assumption that unclassified busses belonged to the capacity group, 8 to 20 passengers, and that unclassified

tractor trucks belonged to the capacity group, over 1½ and less than 3 tons. In all tabulations by capacity, however, unclassified vehicles are listed separately.

The total number of these unclassified vehicles was 35,608 or 0.14 percent of all vehicles registered and tax-paid. The total payments involved, including estimated payments of gasoline taxes, were \$1,440,896, or 0.17 percent of all State fees and taxes.

*For-hire trucks not segregated from private carriers.*—In a few States the numbers and registration fees of contract or common carriers, or both, were tabulated with those of private carriers, although the numbers of such for-hire carriers were also listed separately, with their payments of special fees. In most cases it was possible, by computing average fees, to approximate the payments of registration fees by the for-hire carriers, and tabulate them separately in the proper capacity groups. Exceptions occurred, however, with respect to 297 contract-carrier trucks in Montana, 647 contract-carrier trucks in Oklahoma, and 172 contract-carrier and 2,098 common-carrier trucks in South Dakota. These trucks were not classified by weight or capacity, although the totals of all trucks in these States (in which these for-hire carriers were included) were so classified. It would have been possible to assume a capacity distribution for these vehicles, but it was believed that such a degree of approximation was unwarranted. Without such a distribution it was impossible to segregate these trucks from the classified lists of trucks in which they were included. The special fees paid by these "unsegregated" vehicles included \$80,701 paid by contract carriers in Montana, Oklahoma, and South Dakota, and \$36,971 paid by common carriers in South Dakota. The method of handling these items in the compilation of national totals and averages is shown in footnote 9 of table 1.

A similar situation, even more difficult to deal with, occurred in the case of Tennessee. In this State it was reported that there were 397 for-hire carriers of property, including trucks, tractor trucks, trailers, and semitrailers, under the jurisdiction of the Railroad and Public Utilities Commission. Fees paid by these vehicles were reported as follows:

Registration fees.....	\$21, 199
Mileage tax.....	17, 383
Inspection fees.....	1, 695

These vehicles and their payments of registration fees and mileage taxes were included in the tabulations of trucks, tractor trucks, and trailers and semitrailers without regard to class of service. The inspection fee was reported as applying to these vehicles only. However, since they could not be classified either by type or by capacity, there was no way of segregating them from private carriers. Their payments of special fees are included with the "undistributed fees", which are discussed in the next section.

*Undistributed fees.*—In addition to the items described in the preceding paragraphs, fees were reported in a number of States which could not be allocated to any given numbers or groups of vehicles in the conventional scheme of classification. The total amount of money involved was \$851,993, of which \$11,536 consisted of registration fees and \$840,457 of special fees and taxes paid by commercial carriers.

The nature of these unallocated items will be made clear by a few illustrations. In Kansas a ton-mile tax was imposed on for-hire carriers of persons and property

and certain classes of private carriers. The receipts from this tax in 1932, \$186,153, were reported in a lump sum, and no reasonable basis could be found for allocating this sum among the several classes of freight and passenger carriers. Similarly, in Pennsylvania, a receipts tax on for-hire carriers of persons and property, yielding \$33,946, was not allocated. In Wisconsin contract carriers of property were not reported separately from those privately owned and operated, although the former (and certain private carriers as well) were required to pay a ton-mile tax and certain permit fees. These payments, amounting to \$246,888, could not be assigned to any specific group of vehicles, and were therefore carried as "undistributed". In this same State, and in Ohio and Iowa, fees paid by out-of-State vehicles could not be allocated among vehicles of the State, although they were assigned to the proper classes in the national totals.

Of the \$840,457 in undistributed special fees, a total of \$278,151 was, in the national totals, allocated by class of service (but not by capacity). The remainder, \$562,306, is listed in table 1 as "undistributed fees." The footnotes to table 15 give further information on these troublesome items.

#### REGISTRATIONS AND PAYMENTS BY PASSENGER CARS DISCUSSED

The total number of passenger automobiles reported in the 1932 survey was 20,836,362. This total includes 77,222 taxicabs and other for-hire cars reported separately from private passenger cars in 27 States and the District of Columbia. Twenty States failed to segregate taxicabs from private cars, and one State, California, included them with light trucks. The figure given for passenger cars in table 1—20,759,140—includes for-hire cars in these 20 States. It also includes ambulances and hearses in a number of States which reported such vehicles separately. Similarly, snowmobiles, reported by a few States, were included with passenger cars. Publicly owned vehicles are not included, except in the case of a few States which failed, wholly or in part, to segregate such vehicles from those paying regular registration fees.

Total and average payments by passenger cars were as follows:

Registration fees:	
Total payments.....	\$213, 357, 330
Average per vehicle.....	10. 28
Gasoline taxes:	
Total payments.....	375, 082, 015
Average per vehicle.....	18. 07
All fees and taxes:	
Total payments.....	588, 439, 345
Average per vehicle.....	28. 35

The registration fees imposed on passenger cars varied with the size of vehicle in all but three States, California and Washington, in which a fee of \$3 was charged, and Arizona, in which the rate was \$3.50. In the District of Columbia a \$1 fee is charged against all gasoline-driven automobiles. Weight was the most common measure of size, 30 States using it as the basis of fee, either alone or in combination with other factors. Horsepower was used as a basis in 18 States and value or list price in three.

Average payments of registration fees ranged from \$1 in the District of Columbia to \$21.45 in Vermont. Among the low States were Washington, with \$2.94; California, with \$3.02; Arizona, with \$3.50; Massachusetts, with \$3.58; and Colorado, with \$4.94. States which exacted relatively high fees from their passenger cars were Oregon, in which the average payment was

\$21; Arkansas, with \$19; Connecticut, with \$17; and Florida, with \$16. Clustered about the average were New Jersey, Kansas, Pennsylvania, Wyoming, and North Dakota, all charging averages of \$10 and \$11.

The method of estimating gasoline-tax payments has been described (see p. 190). Differences among the States in the estimated average payments are dependent on differences in the gasoline-tax rates and the average per-vehicle consumption of gasoline. The range in gasoline-tax payments, as computed, extended from \$9.77 in the District of Columbia to \$44 in Florida. North Dakota was the lowest in gasoline-tax payments other than the District of Columbia, with an average for passenger cars of \$10.32. Among the high States were Tennessee, with \$36; Georgia, with \$35; Arkansas, with \$32; and South Carolina, with \$32. In Tennessee and Florida the rate is 7 cents per gallon; in the others mentioned as high States the rate is 6 cents.

In total payments the District of Columbia, with a \$1 registration fee and a gasoline-tax rate of 2 cents per gallon, is naturally the minimum with an average payment of \$10.77. California comes next, with \$19. The largest payments were found in Florida, \$60; Arkansas, \$50; Georgia, \$48; and Tennessee, \$47. New York, Connecticut, Arizona, and Texas were within \$1 of the national average of \$28.35.

#### TAXICAB PAYMENTS GENERALLY HIGHER THAN THOSE FOR PRIVATE PASSENGER VEHICLES

Nearly all of the 27 States which reported taxicabs charged heavier registration fees against them than against private passenger cars. In Colorado, Georgia, Maryland, Nevada, Oregon, Vermont, and the District of Columbia, the rates were the same as for private cars. In all except Maryland and the District of Columbia, however, the average payments by taxicabs exceeded those of private cars.

The total and average fees paid by the 77,222 taxicabs reported separately were as follows:

Registration fees:	
Total payments.....	\$1, 368, 148. 00
Average per vehicle.....	17. 72
Gasoline taxes:	
Total payments.....	4, 682, 742. 00
Average per vehicle.....	60. 64
Special fees.....	117, 997. 00
All fees and taxes:	
Total payments.....	6, 168, 887. 00
Average per vehicle.....	79. 89

The average for special fees is not given, as they were imposed in only a few States.

After the District of Columbia, Colorado charged the minimum registration fees, with an average of \$5.13 for taxicabs, Maryland following with \$7.36. The maximum occurred in West Virginia, in which the average payment was \$59. In North Carolina it was \$55 and in Connecticut, \$46.

Average payments of all fees and taxes by taxicabs ranged from \$50 in the District of Columbia to \$200 in Florida. Among the low States were North Dakota, with \$59, and New Jersey and New York, with \$70.

Gasoline-tax payments by taxicabs were estimated on the basis of an average annual mileage of 25,000 miles. (See table 5.) There is no point in discussing these payments, as they are proportional to the payments reported for passenger cars in the States represented.

Special fees and taxes paid by taxicabs or other cars for hire were reported in six States and the District of Columbia, the total payments amounting to \$117,997.

These special taxes included a receipts tax in Arizona, an occupation tax on U-Drive-It systems in Georgia, special-license taxes in Nevada, Oregon, and the District of Columbia, fees for certificates of convenience and necessity in North Dakota, and a privilege tax in Tennessee. Details of the payments are given in the first two columns of figures in table 15. Taxicabs also participated in the payment of the receipts tax in Pennsylvania, previously mentioned, but their payments could not be segregated from those of other vehicles.

#### BUSSES REPORTED IN THREE CLASSES

In the instructions to the statisticians who collected the data on State motor-vehicle taxes, it was requested that busses be reported in three classes—(1) school and private busses, (2) sight-seeing and other contract-carrier busses, and (3) public-carrier busses. All of the 16 States which reported tax-paid busses in the first class described them as school busses. It is to be inferred that privately owned and operated busses such as those owned by factories, real-estate developers, and various private institutions, were reported with other registration classifications.

Nine States reported busses in all three classes. Seven States reported tax-paid school busses, but did not segregate sight-seeing or contract-carrier busses from other classes of vehicles. Ten States and the District of Columbia reported busses in the contract-sight-seeing class, but did not report tax-paid school busses. The remaining States failed to report any tax-paid school busses or to segregate sight-seeing and contract-carrier busses from other registration classifications. Commercially operated busses, either public carriers or a combination of public and contract carriers, were reported in all the States.

The numbers of busses reported in the three classifications in the 1932 survey were as follows:

School busses	9,813
Contract-carrier busses, including sight-seeing	3,314
Public-carrier busses	36,325
Total	49,452

It should be remembered that only tax-paid school busses are included in the survey total. No attempt was made to obtain an accurate count of publicly owned or tax-exempt school busses. Approximately 12,700 publicly owned busses were reported by the States. It was apparent, however, that the reporting of publicly owned and tax-exempt vehicles was very incomplete. Other sources<sup>3</sup> indicate that the number of school busses in operation in 1932 was between 60,000 and 70,000.

The number of busses reported as engaged in commercial operations (sight-seeing, contract, and public-carrier) was 39,639. In a number of States, including Georgia, Mississippi, Ohio, South Carolina, Texas, and possibly others, busses operating in cities were not reported separately or as public carriers, but were included in other classifications, particularly passenger cars and trucks. The figure given by Bus Transportation<sup>3</sup> for commercial or "revenue" busses was 42,348. City busses were given separately in this tabulation; and in the five States mentioned above 1,518 city busses were reported. The agreement between the two surveys appears sufficiently close when it is remembered that the Bus Transportation figures were

<sup>3</sup> Bus transportation, February 1933, McGraw-Hill Publishing Co., Inc., New York City; and Circular No. 132, Office of Education, United States Department of the Interior, Consolidation of Schools and Transportation of Pupils, 1931-32, by David T. Blase.

obtained very largely from operating companies, while those obtained in this survey were taken from State records, which frequently do not separate all vehicles operating as busses from other classifications.

#### BUS REGISTRATION RATES VARIED WIDELY

In the 16 States which reported tax-paid school busses, they were commonly registered according to weight or capacity, although in several States flat fees were charged, ranging from \$2 per vehicle in Massachusetts to \$75 per vehicle in West Virginia. In general, sight-seeing and contract-carrier busses were registered at considerably higher rates than school busses and not infrequently the fees corresponded to those paid by public-carrier busses.

In all States (the District of Columbia excepted) the registration fees imposed on public-carrier busses were graduated to increase with the size of the vehicle. Weight, either alone or in combination with other factors, was a common basis of registration, 9 States reporting a gross-weight and 15 a net-weight basis. Seating capacity appeared as a basis of registration fee in 27 States; in 10 of these capacity alone was the basis, while in the remainder it was used in combination with other factors.

There was great variety in the rates of fees imposed, even in those States in which registration fees were based on the same factors. In the seven States which used gross weight as a single basis of taxation, the minimum rate reported was that in Nevada, 30 cents per 100 pounds. In Vermont the rate was \$1 per 100 pounds, and in Delaware, 40 cents. In New Hampshire, Illinois, Wisconsin, and Texas the rate itself varied with the weight; the highest rate reported was \$4 per 100 pounds, charged in Texas against busses having a gross weight of more than 28,000 pounds.

In the six States basing registration fees on net weight alone, the fees varied from 50 cents to \$2.25 per 100 pounds, the latter rate being charged in Ohio for that portion of the weight of the vehicle in excess of 10,000 pounds.

Where capacity was the basis of registration fees, the rates charged varied so widely for busses of different sizes that a direct comparison of rates is not feasible. An example may be given, however. In the 10 States registering busses on the basis of capacity alone, 30-passenger busses were required to pay registration fees varying from \$18 in Missouri to \$180 in Indiana.

#### SPECIAL FEES IMPORTANT FACTOR IN TAXATION OF BUSSES

In addition to registration fees the majority of States imposed some form of special tax on busses operated for hire, particularly public carriers. In four States the special tax was imposed in lieu of registration fees, a receipts tax in California and passenger-mile taxes in Maryland, West Virginia, and South Carolina.

*Mileage, ton-mile, and passenger-mile taxes.*—Taxes based on the operations of public-carrier busses were imposed in 19 States and the District of Columbia. Mileage taxes—i.e., those in which the charge is directly proportional to the miles traveled—were found in Alabama, Florida, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, Tennessee, and the District of Columbia. In all except New Jersey and the District of Columbia, the rate per mile increased with the seating capacity. In Florida, for example, the rate was  $\frac{1}{2}$  cent per mile for busses of 10 passengers or less,  $\frac{3}{4}$  cent per mile for 11 to 20 passengers, and 1 cent

for more than 20 passengers. In New Jersey the tax was levied against interstate busses only.

Taxes assessed at a constant rate against operations in terms of ton-miles or passenger-miles were found in 10 States. In Wyoming, Colorado, and Utah, the rates were based on the actual number of passengers carried times the actual miles each as carried. In Wyoming the rate was  $\frac{1}{20}$  cent per passenger-mile; in Colorado,  $\frac{1}{10}$  cent; and in Utah,  $\frac{1}{4}$  cent on hard-surfaced roads and  $\frac{1}{10}$  cent on other roads.

In all other States using this form of tax the rate was based either on passenger capacity or on the gross weight of vehicle, plus capacity load, allowing 150 pounds per passenger. The former basis was used in Maryland, Oregon, South Carolina, and West Virginia; the latter in Iowa, Kansas, and Wisconsin. The rates per passenger seat-mile varied from as low as  $\frac{1}{50}$  cent in South Carolina to  $\frac{1}{15}$  cent in West Virginia. The rate per ton-mile in Iowa was  $\frac{1}{4}$  cent; in Kansas,  $\frac{1}{20}$  cent; and in Wisconsin  $\frac{1}{10}$  cent.

Mileage taxes were imposed on contract and sight-seeing busses in Florida and Oklahoma, and in Utah such vehicles participated in the payment of the passenger-mile tax.

*Receipts taxes.*—Ten States—Arizona, Arkansas, California, Connecticut, Idaho, North Carolina, Pennsylvania, South Dakota, Virginia, and Washington—imposed fees in the form of a percentage tax on the revenues derived from the operations of public-carrier busses within the State. The receipts tax was imposed in addition to the registration fee in all these States except California, where the tax was in lieu of registration fees, and North Carolina, where the registration fee was credited on the amount collectible in receipts taxes. The rates varied from eight-tenths of 1 percent in Pennsylvania to 6 percent in North Carolina.

*Other special fees.*—Special fees other than receipts taxes and those based on mileage were reported by 17 States in the case of public-carrier busses and by 3 States and the District of Columbia in the case of sight-seeing or contract-carrier busses. Although imposed under various names, such fees may be roughly divided into three classes.

Most numerous were fees required for the issuance of certificates of convenience and necessity, or for equivalent permits to operate, which were imposed in Alabama, Georgia, Kentucky, Minnesota, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wisconsin, and Wyoming. Certificate fees are usually nominal flat fees which are paid when the certificate is applied for, and are not generally assessed annually. As ordinarily issued, the certificate empowers a company to operate over a specified route or routes, and the fee is independent of the number of vehicles to be operated.

A second class of fees were those charged for permits to operate, at a flat rate per vehicle. Such fees were charged against public-carrier busses in Georgia, Montana, and Wisconsin, the rates being \$25, \$10, and \$40, respectively. Sight-seeing busses in the District of Columbia paid a \$100 fee.

A number of States imposed, under various names, special-license taxes which varied with the weight or capacity of the vehicle, in much the same manner as registration fees. Such fees were imposed on public-carrier busses in Michigan, Nevada, Ohio, Tennessee, and Texas; and on contract and sight-seeing busses in Oklahoma and Oregon.

*City busses.*—In a number of States a distinction was made between busses operated exclusively or cus-

tomarily in urban service only, and those operating on the rural roads. Thus, in New York, city busses, termed "special-franchise" busses, paid registration fees at a flat rate of \$10 each, while interurban busses paid fees ranging from \$30.50 for those seating 8 to 10 passengers, to \$67.50 plus \$2 for each seat over 30 for those seating 31 passengers or more. The receipts tax in North Carolina was imposed only on interurban busses; in lieu of this tax city busses were charged heavier registration fees than the interurban busses. In Georgia city busses were exempted from the payment of certificate fees, permit fees, and mileage taxes imposed on interurban public carriers, but were required to pay an occupation tax. Similar exemptions or separate provisions for city busses were found in South Carolina, Ohio, Wisconsin, Kansas, Kentucky, Tennessee, Mississippi, Texas, New Mexico, and Oregon.

#### BUS PAYMENTS DISCUSSED

A total of \$211,633 was paid in registration fees by the 9,813 tax-paid school busses. Estimated payments of gasoline taxes were \$384,393. Average payments of registration fees ranged from a rate of \$2 in Massachusetts to an average of \$128, paid by school busses carrying over 20 passengers in Oregon. In some States publicly owned school busses were charged nominal fees, varying from 25 cents to \$1. In most States the fees were graduated according to seating capacity or weight. Average payments by the three capacity groups were as follows:

7 passengers or less:	
Registration fees.....	\$10. 63
Gasoline taxes.....	22. 14
All fees and taxes.....	<u>32. 77</u>
8 to 20 passengers:	
Registration fees.....	24. 85
Gasoline taxes.....	35. 96
All fees and taxes.....	<u>60. 81</u>
Over 20 passengers:	
Registration fees.....	62. 77
Gasoline taxes.....	48. 77
All fees and taxes.....	<u>111. 54</u>

In table 6 is given a summary, by capacity groups, of the registrations, total payments, and average payments of contract and public-carrier busses. Associated with each class of fee is the number of vehicles in each capacity group concerned in the payment of such fees. Special fees are divided into three classes, (1) mileage, ton-mile, and passenger-mile taxes, (2) receipts taxes, and (3) other special fees. This latter class includes franchise, privilege or special license taxes, permit fees, and fees for certificates of convenience and necessity.

In table 6 all the averages are based on the number of vehicles involved in the payments tabulated. In certain cases, covered by footnotes, the total number of vehicles involved is not known, and the average is omitted. It may be observed that certain of the averages computed in this manner differ from those given in table 1, which are based on all the vehicles registered in a given class or group. For example, the average payment of registration fees by public-carrier busses, based on the total of 36,325 public-carrier busses registered, was \$84; based on the 33,246 busses which actually paid registration fees, the average is \$92. Average gasoline-tax payments and the averages of all fees and taxes are, of course, the same in all tables.

The payments by busses in individual States are given in tables 14 and 15. Average payments of

TABLE 6.—State taxes imposed on contract- and public-carrier busses in 1932; national totals and averages

Rated capacity	Number registered	Estimated payments of motor-fuel taxes		Registration fees			Registration fees and motor-fuel taxes			Mileage, ton-mile or passenger-mile taxes		
		Amount	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle
<i>Passengers</i>												
Contract, including sight-seeing:												
7 or less.....	1,862	\$99,113	\$53.23	1,862	\$22,077	\$11.86	1,862	\$121,190	\$65.09	61	\$1,990	\$32.62
8 to 20, inclusive.....	477	65,626	137.58	477	18,493	38.77	477	84,119	176.35	33	2,530	76.67
Over 20.....	490	120,136	245.18	490	43,197	88.16	490	163,333	333.34	26	4,538	174.54
Total classified.....	2,829	284,875	100.70	2,829	83,767	29.61	2,829	368,642	130.31	120	9,058	75.48
Not classified by capacity <sup>1</sup> .....	485	46,908	96.72	485	73,628	151.81	485	120,536	248.53			
Total.....	3,314	331,783	100.12	3,314	157,395	47.49	3,314	489,178	147.61	120	9,058	75.48
Public carrier:												
7 or less.....	3,630	190,593	52.50	3,348	93,787	28.01	3,630	284,380	78.34	1,936	55,472	28.65
8 to 20, inclusive.....	7,176	883,604	123.13	6,400	411,815	64.35	7,176	1,295,419	180.52	1,533	224,335	146.34
Over 20.....	24,873	4,234,921	170.26	22,958	2,467,390	107.47	24,873	6,702,311	269.46	2,873	790,380	276.11
Total classified.....	35,679	5,309,118	148.80	32,706	2,972,992	90.90	35,679	8,282,110	232.13	6,342	1,070,187	168.75
Not classified by capacity <sup>1</sup> .....	646	73,138	113.22	540	65,659	121.59	646	138,797	214.86	106	28,896	272.60
Undistributed fees <sup>2</sup> .....					9,018			9,018			154,648	
Total.....	36,325	5,382,256	148.17	33,246	3,047,669	91.67	36,325	8,429,925	232.07	<sup>3</sup> 6,448	1,253,731	

Rated capacity	Receipts taxes			Franchise fees, certificate fees, and other miscellaneous special fees			All special fees			All fees and taxes		
	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount	Average per vehicle
<i>Passengers</i>												
Contract, including sight-seeing:												
7 or less.....				192	\$2,525	\$13.15	225	\$4,515	\$20.07	1,862	\$125,705	\$67.51
8 to 20, inclusive.....				24	780	32.50	52	3,310	63.65	477	87,429	183.29
Over 20.....				51	5,009	98.22	72	9,547	132.60	490	172,880	352.82
Total classified.....				267	8,314	31.14	349	17,372	49.78	2,829	386,014	136.45
Not classified by capacity <sup>1</sup> .....										485	120,536	248.53
Total.....				267	8,314	31.14	349	17,372	49.78	3,314	506,550	152.85
Public carrier:												
7 or less.....	529	\$26,005	\$49.16	665	14,479	21.77	2,876	95,956	33.36	3,630	380,336	104.77
8 to 20, inclusive.....	1,150	116,031	100.90	1,584	47,018	29.68	3,646	387,384	106.25	7,176	1,682,803	234.50
Over 20.....	2,727	596,853	218.87	2,124	118,184	55.64	7,156	1,505,417	210.37	24,873	8,207,728	329.98
Total classified.....	4,406	738,889	167.70	4,373	179,681	41.09	13,678	1,988,757	145.40	35,679	10,270,867	287.80
Not classified by capacity <sup>1</sup> .....				540	64,736	119.88	646	93,632	144.94	646	232,429	359.87
Undistributed fees <sup>2</sup> .....					50,179			204,827			213,845	
Total.....	4,406	738,889	167.70	<sup>4</sup> 4,913	294,596		<sup>5</sup> 14,324	2,287,216		36,325	10,717,141	295.03

<sup>1</sup> See p. 191.

<sup>2</sup> See pp. 191 and 192.

<sup>3</sup> Does not include unknown number of busses in Tennessee paying mileage taxes of \$72,288, and unknown number of interstate busses paying mileage taxes of \$79,802 in New Jersey. These amounts are included in "Undistributed fees" on preceding line.

<sup>4</sup> Does not include unknown number of busses in Tennessee paying privilege taxes of \$8,510 and inspection fees of \$10,263. These amounts are included in "Undistributed fees" on preceding line.

<sup>5</sup> See footnotes 4 and 5.

registration fees by public-carrier busses varied from \$1 in the District of Columbia and \$11 in Montana to \$518 in Minnesota. Other States in which the payments were high were Wisconsin, with \$492; Florida, with \$255; and Idaho, with \$252.

Payments of special fees by public-carrier busses, not including items in Pennsylvania, Kansas, and New Mexico, which were not segregated from payments by other carriers, were \$2,287,216. Mileage, ton-mile, and passenger-mile taxes were the most lucrative, the revenues from this form of taxation totaling \$1,253,731. It is apparent that special taxes formed a significant part of the total payments by busses. In a few States the payments were very high. Payments of ton-mile taxes by public-carrier busses in Iowa averaged \$656 per vehicle; the mileage tax in Florida yielded \$242 per bus; the receipts tax in California (imposed in lieu of registration fees) produced an average payment of \$260.

In the payments of all fees and taxes, including registration fees, gasoline taxes, and special fees, the highest average was found in Iowa. Public-carrier busses in that State paid an average of \$932 per vehicle. This is an average for Iowa-licensed vehicles, payments by out-of-State vehicles having been eliminated from the computation. Other States in which the payments were high were Wisconsin, with \$828; Florida, with \$772; Minnesota, with \$638; and Tennessee, with \$540. Payments were relatively low in Montana, in which the average was \$112. Other States with low averages were Colorado, with \$114; North Dakota, with \$155; and the District of Columbia, with \$175.

The averages given above are for all busses in the States concerned, and their magnitudes are naturally affected by the relative numbers of light and heavy busses. That the scale of payments increased rapidly with the size of bus is evident from an inspection of table 6. A few examples will serve to point the fact

more clearly. In Minnesota busses having capacity of more than 20 passengers paid in registration fees an average of \$564 per vehicle; in Wisconsin the average was \$543. Average payments of all fees and taxes by busses in this class in Minnesota were \$692; in Florida, \$861; in Wisconsin, \$901; in Iowa, \$1,212.

COMPARISON OF FEES REQUIRED FOR TYPICAL PUBLIC-CARRIER  
BUS OPERATION

In order to show the extremes of variation in tax payments required of public-carrier busses under comparable operating conditions, an example has been computed to show the State fees and taxes which would have been paid in 1932 by a 30-passenger bus operating 25,000 miles. The States selected for comparison were Rhode Island, New York, Florida, Michigan, and Oregon.

The net weight of the 30-passenger bus is taken as 10,700 pounds, and the gross weight, at 150 pounds per passenger, is 15,200 pounds. At an assumed rate of 5 miles per gallon of gasoline, the bus would consume 5,000 gallons per year. The rates of fees required in the 5 States are given in the following paragraphs.

Rhode Island: A registration fee of \$46 plus \$2 per passenger seat and a gasoline tax of 2 cents per gallon.

New York: A registration fee of \$67.50 and a gasoline tax of 2 cents from January 1 to February 29 and 3 cents beginning March 1, the average payment for the year being approximately 2.86 cents per gallon.

Florida: A registration fee of \$2 per 100 pounds net weight plus \$20 per passenger seat, a gasoline tax of 7 cents per gallon, and a car-mile tax of 1 cent per mile.

Michigan: A registration fee of \$1.25 per 100 pounds net weight, a gasoline tax of 3 cents per gallon, and a public utility permit fee of \$1 per 100 pounds net weight.

Oregon: A registration fee of \$1.10 per 100 pounds net weight, a gasoline tax of 4 cents per gallon, and a passenger-mile tax of 0.5 mill per capacity seat-mile.

In the case of Florida, in which the required payments were the highest, the items making up the total are as follows:

Registration fee.....	\$814
Gasoline tax.....	350
Car-mile tax.....	250
Total.....	1,414

The total payments which would be required in the five States chosen for comparison, arranged in descending order of magnitude, are given below:

Florida.....	\$1,414.00
Oregon.....	692.70
Michigan.....	390.75
New York.....	210.50
Rhode Island.....	206.00

PAYMENTS BY TRUCKS AND OTHER FREIGHT VEHICLES ANALYZED

In the instructions to statisticians it was requested that freight vehicles be reported in three groups, trucks, tractor trucks, and trailers and semitrailers. Only 23 States, however, reported tractor trucks separately from trucks, and in several of these there was evidence that the figures were incomplete. In general, tractor trucks are registered and taxed on much the same basis as trucks, and no separate data regarding them are given in this digest. Trailers and semitrailers were reported by all States except two—Kentucky and Oklahoma. In Kentucky full trailers are prohibited and tractor-semitrailer units are registered as trucks. In Oklahoma there was no registration of trailers in 1932.

In every State (the District of Columbia excepted) the registration fees of trucks were graduated so as to increase with the size of vehicle. In contrast to passenger cars and busses, for which weight was the most common basis of registration fee, trucks were registered according to carrying capacity in the majority of the States in 1932. Capacity, alone or in combination with a flat fee, weight, or horsepower, appears in 26 States as the basis of registration fee for privately owned and operated trucks. Twenty-two States registered trucks according to weight, the basis being gross weight in 11 States, net weight in 8 States, and chassis weight in Pennsylvania, South Dakota, and Idaho. A flat fee in combination with weight or capacity appeared as the basis in 6 States. Maryland was the only State which imposed fees according to horsepower alone; but horsepower in combination with capacity was reported in Tennessee and Louisiana. Minnesota alone used value as a basis.

Registration fees for private trucks were modified according to age or the number of previous registrations in 5 States, although in Mississippi reduction of fee for age was applied only to trucks of less than 2½ tons capacity, and was effective only after July 1, 1932.

Space does not permit a tabulation or full discussion of the registration fees imposed on trucks. For present purposes a comparison of the rates in a few States in different parts of the country will serve to illustrate the variety and range in the registration fees charged against trucks in 1932. In all cases the rates given are for 4-wheel, pneumatic-tired trucks.

*Capacity States.*—In Connecticut the rates varied from \$15 for a ½-ton truck to \$217.50 for a 6½-ton truck, with \$75 additional for each ton or fraction thereof over 6½ tons. In Georgia, the fees ranged from \$15 for 1 ton or less to \$1,125 for 7 tons or over. In Missouri trucks of less than 2 tons capacity paid \$10.50; those of 7 and less than 8 tons capacity paid \$36, and \$15 was paid for each ton in excess of 8. In Oklahoma \$15 was paid by trucks having a capacity of three-fourths of a ton or less, and \$300 by all of over 4 tons. In Utah the rates varied from \$5 for a ½-ton truck to \$100 for a 5-ton truck, with \$50 additional for each ton over 5.

*Gross-weight States.*—In Massachusetts the fee charged was 15 cents per 100 pounds weight of the vehicle and its maximum carrying capacity, with a minimum fee of \$6. In North Carolina, the rates, although based on gross weight, varied with the rated capacity. For trucks of 2 tons capacity or less the rate was 55 cents per 100 pounds, gross weight; for 2 tons to 3 tons the rate was 70 cents per 100 pounds; for more than 3 tons, the rate was \$1 per 100 pounds. The minimum fee was \$15. In Illinois the rates varied from \$10 for trucks having a gross weight of 3,000 pounds or less to \$150 for gross weights between 20,000 and 24,000 pounds. In Texas a rate of 40 cents per 100 pounds was charged for gross weights of 6,000 pounds or less. The rate increased with the weight until it reached \$4 per 100 pounds for weights over 26,000 pounds.

*Net-weight States.*—In New York a flat rate of \$12 was charged for trucks weighing less than 1,800 pounds. For other trucks a rate of 80 cents per 100 pounds net weight was charged. In Florida trucks weighing 4,000 pounds or less paid 75 cents per 100 pounds; trucks weighing over 4,000 pounds paid \$2 per 100 pounds. In Michigan the rate varied from 65 cents per 100

pounds for trucks weighing 2,500 pounds or less to \$1.25 per 100 pounds for those weighing over 6,000 pounds. In California there was a flat fee of \$3, to which were added fees ranging up to \$50 for the heaviest weights permitted for 4-wheel trucks. Those weighing less than 3,000 pounds paid only the flat fee.

**NATIONAL FIGURES FOR TRUCKS FOR 1932 SHOWN**

National totals, averages, and percentages for trucks and tractor trucks, and for trailers and semitrailers, are given in table 7. The tabulation includes, for each capacity group, the number registered and tax paid and total and average payments of gasoline taxes, registration fees, special fees (without averages), and all fees and taxes. The percentage distribution of numbers registered and fees paid among the several capacity groups is also given.

The total number of freight-carrying vehicles registered in 1932 was 3,644,591, or 14.80 percent of all vehicles registered and tax-paid in that year. The total of all State fees and taxes paid by these vehicles was \$203,866,943, or 25.12 percent of all payments charged directly against motor vehicles in 1932.

Of all trucks and tractor trucks registered in 1932, 83.05 percent were light-weight vehicles, having rated capacities of 1½ tons or less. The percentage decreases steadily with the size of vehicle, except for the last bracket group, which contains all trucks of more than 5 tons capacity.

In the payments of fees and taxes the percentages were much different. Five-ton trucks and tractor trucks, which constituted only 0.88 percent of those registered, accounted for 1.54 percent of the gasoline taxes and 3.91 percent of the registration fees paid in 1932 by all trucks and tractor trucks.<sup>4</sup> Those of more than 5 tons capacity, which included only 1.37 percent of the vehicles, contributed 4.41 percent of all State fees and taxes paid by trucks.

This variation of fee payments with capacity is shown more clearly by the averages given in table 7. Average registration fees varied from \$16 in the lowest capacity group to \$114 paid by those of more than 5 tons capacity; and average gasoline-tax payments ranged from \$36 to \$81.

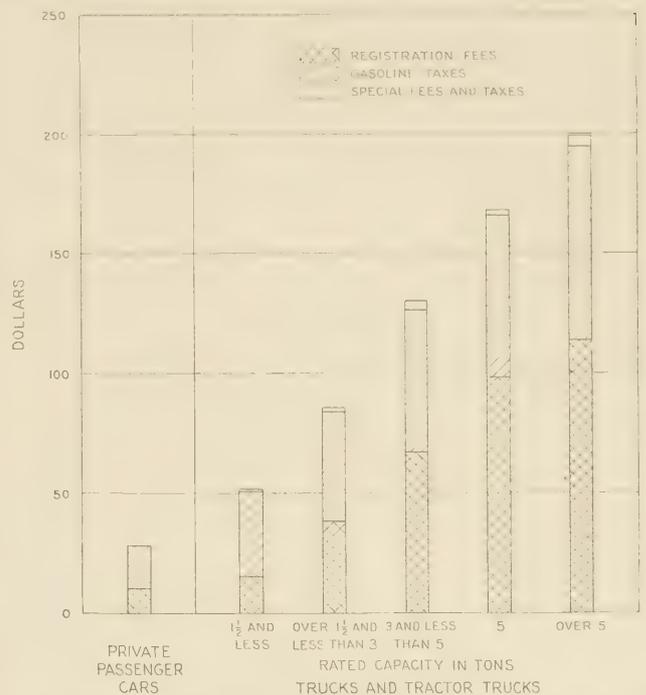
Similar relations are shown in the trailer payments. The fees imposed on trailers are, in the majority of States, considerably less than those imposed on trucks. This is particularly true in the case of very light trailers, as is shown by the fact that those having capacities of 1½ tons or less paid average registration fees of only \$3.34. However, there is a sharp rise in average payments with capacity, until we find those of more than 5 tons capacity charged with average registration fees of \$71, and total payments of \$92.

The excess registration fees of \$500,807, paid by contract and common carriers, and the special fees of \$2,585,161, which were also, for the most part, the contribution of for-hire carriers, play no great part in the total payments by trucks and trailers. They are included in table 7 to complete the record, and are taken up in detail in the section dealing with contract and common carriers.

**DISTRIBUTION OF TRUCKS BY CAPACITY GROUPS**

In table 8 all trucks and tractor trucks and trailers and semitrailers registered in each State in 1932 are listed by capacity groups. While this table is useful

<sup>4</sup> Unless otherwise specified the word "trucks", when used subsequently in this discussion, refers to trucks and tractor trucks.



COMPARISON OF AVERAGE PAYMENTS OF STATE FEES AND TAXES IN 1932 BY PRIVATE PASSENGER CARS AND BY TRUCKS AND TRACTOR TRUCKS OF DIFFERENT RATED CAPACITIES.

chiefly for reference purposes, certain significant facts may be gleaned from it. Of particular interest is the distribution of trucks by capacity in different States and in the several regional groups. In those States which are predominantly rural the percentage of light trucks was very high, and there were relatively few having capacities of 3 tons or more. In seven States, Vermont, South Carolina, North Dakota, South Dakota, Tennessee, Montana, and Wyoming, none had a capacity of more than 5 tons. Five-ton trucks were found in all States, but the number was 20 or less in South Carolina, Georgia, North Dakota, South Dakota, Alabama, Arkansas, Wyoming, and New Mexico.

**COMPARISONS RELATING TO THE NUMBERS OF HEAVY TRUCKS AND THE FEES IMPOSED**

In the complete report considerable space is devoted to a discussion of the relative numbers and percentages of heavy trucks registered in different States, and to consideration of the question whether or not the imposition of high registration fees upon such vehicles, particularly when accompanied by high gasoline tax rates, tends to discourage the registration of such vehicles and, in consequence, to reduce the revenues derived from them. It is not possible, in this short digest, to reproduce this discussion, but we may set down the main points established, with sufficient illustrative material to indicate the trend of the analysis.

1. As would be expected, the dominant factor determining the relative numbers or percentages of heavy trucks registered in different States is the comparative industrial and commercial development of the States concerned. The highly developed States of the East, the Middle West, and the Pacific coast have many heavy trucks. Relatively few are found in the North-western and Mountain States and in most of the States of the South, although in a few of the sparsely populated States, such as Nevada, the percentage of heavy trucks is high.

TABLE 7.—State taxes imposed on freight vehicles in 1932; national totals, averages, and percentages

Rated capacity	Number registered	Percentage distribution	Estimated payments of motor-fuel taxes			Regular registration fees <sup>1</sup>		
			Amount	Average per vehicle	Percentage distribution	Amount collected	Average per vehicle	Percentage distribution
<i>Tons</i>								
Trucks and tractor trucks:								
1½ and less.....	2,681,985	83.05	\$96,990,409	\$36.16	76.64	\$41,353,370	\$15.42	58.43
Over 1½ and less than 3.....	341,285	10.57	15,812,494	46.33	12.49	12,953,474	37.96	18.30
3 and less than 5.....	128,938	3.99	7,721,581	59.89	6.10	8,601,940	66.71	12.15
5.....	28,544	.88	1,943,828	68.10	1.54	2,771,781	97.11	3.92
Over 5.....	44,056	1.37	3,573,972	81.12	2.82	5,013,807	113.81	7.09
Total classified.....	3,224,808	99.86	126,042,284	39.09	99.59	70,694,372	21.92	99.89
Not classified by capacity <sup>3</sup> .....	4,507	.14	519,385	115.24	.41	77,657	17.23	.11
Other undistributed fees <sup>4</sup> .....						2,518		.00
Total.....	3,229,315	100.00	126,561,669	39.19	100.00	70,774,547	21.92	100.00
Trailers and semitrailers:								
1½ and less.....	326,183	78.55				1,083,073	3.32	31.44
Over 1½ and less than 3.....	25,705	6.19				344,698	13.41	10.01
3 and less than 5.....	23,781	5.73				837,210	35.20	24.30
5.....	6,372	1.53				364,700	57.23	10.59
Over 5.....	8,714	2.10				610,539	70.06	17.72
Total classified.....	390,755	94.10				3,240,220	8.29	94.06
Not classified by capacity.....	24,521	5.90				204,539	8.34	5.94
Total.....	415,276	100.00				3,444,759	8.30	100.00
All freight vehicles.....	3,644,591		126,561,669	39.19		74,219,306	20.36	

Rated capacity	Excess registration fees <sup>1</sup>	Total registration fees <sup>1</sup>			Special fees and taxes <sup>2</sup>	All fees and taxes		
		Amount collected	Average per vehicle	Percentage distribution		Amount	Average per vehicle	Percentage distribution
<i>Tons</i>								
Trucks and tractor trucks:								
1½ and less.....	\$246,581	\$41,599,951	\$15.51	58.42	\$457,634	\$139,047,994	\$51.85	69.68
Over 1½ and less than 3.....	86,861	13,040,335	38.21	18.32	471,473	29,324,302	85.92	14.69
3 and less than 5.....	79,873	8,681,813	67.33	12.19	410,432	16,813,826	130.40	8.43
5.....	13,371	2,785,152	97.57	3.91	80,494	4,809,474	168.49	2.41
Over 5.....	3,535	5,017,342	113.89	7.05	202,220	8,793,534	199.60	4.41
Total classified.....	430,221	71,124,593	22.06	99.89	1,622,253	198,789,130	61.64	99.62
Not classified by capacity <sup>3</sup> .....		77,657	17.23	.11	3,046	600,088	133.15	.30
Other undistributed fees <sup>4</sup> .....		2,518			165,568			.08
Total.....	430,221	71,204,768	22.05	100.00	1,790,867	199,557,304	61.80	100.00
Trailers and semitrailers:								
1½ and less.....	6,621	1,089,694	3.34	31.00	27,478	1,117,172	3.42	28.14
Over 1½ and less than 3.....	17,333	362,031	14.08	10.30	39,776	401,807	15.63	10.12
3 and less than 5.....	29,774	866,984	36.46	24.66	125,028	992,012	41.71	24.99
5.....	12,613	377,313	59.21	10.73	64,401	441,714	69.32	11.12
Over 5.....	4,245	614,784	70.55	17.49	189,954	804,738	92.35	20.27
Total classified.....	70,586	3,310,806	8.47	94.18	446,637	3,757,443	9.62	94.64
Not classified by capacity.....		204,539	8.34	5.82		204,539	8.34	5.15
Other undistributed fees <sup>4</sup> .....					8,377	8,377		.21
Total.....	70,586	3,515,345	8.46	100.00	455,014	3,970,359	9.56	100.00
Undistributed freight-carrier fees <sup>5</sup> .....					339,280	339,280		
All freight vehicles.....	500,807	74,720,113	20.50		2,585,161	203,866,943	55.94	

<sup>1</sup> In a number of States contract and common carriers of property were required to pay higher registration fees than private carriers. "Regular registration fees" include actual payments of private carriers and the estimated payments of contract and common carriers based on the private carrier rates. "Excess registration fees" include all payments of contract and common carriers in excess of the estimated payments at the private carrier rates. "Total registration fees" are total actual payments by all classes of carriers.

<sup>2</sup> Includes all special fees and taxes, paid principally by contract and common carriers, such as mileage taxes, receipts taxes, franchise fees, privilege taxes, and other miscellaneous special fees. Excess registration fees are not included.

<sup>3</sup> All unclassified were tractor trucks. The payments by these vehicles could not logically be distributed among the several capacity groups.

<sup>4</sup> The term "Other undistributed fees" refers to payments which could not properly be assigned to a specific number of vehicles and therefore could not be distributed among the several capacity groups. Also included are payments of special fees by contract-carrier trucks in Montana, Oklahoma, and South Dakota, \$80,701; and special fees of common-carrier trucks in South Dakota, \$36,971. The numbers of these trucks were given, but their registration fees were not segregated from those of private carriers, and they were not classified by weight or capacity.

<sup>5</sup> Special fees applicable to both trucks and trailers, which could not be allocated by reasonable methods of approximation.

2. Limitations imposed on gross loads undoubtedly have an effect on the registration of heavy trucks, particularly those of more than 5 tons capacity. However, in a number of the States reporting few heavy trucks, including Alabama, Georgia, Kansas, Montana, North Dakota, Virginia, and Wyoming, the load restrictions were liberal, particularly with respect to six-wheel trucks.

3. In certain populous States registration fees of considerable magnitude have not apparently discouraged

the registration of heavy trucks. Thus, in Iowa, where registration fees of \$250 were required for 5-ton trucks, and \$350 for 7-ton trucks, the total collections from trucks and tractor trucks of 5 tons capacity or more were \$46,634. In Wisconsin, where the fees for these two classes <sup>5</sup> were \$210 and \$310, respectively, the collections were \$224,551. These rates, however, are low compared to those in effect in certain other States.

<sup>5</sup> Fees computed on basis of conversion between gross weight and capacity; see table 4.

TABLE 8.—State totals of freight vehicles registered and regular fees paid in 1932; grouped according to rated capacity

Division and State	Trucks and tractor trucks							Trailers and semitrailers						
	Rated capacity in tons							Rated capacity in tons						
	1½ and less	Over 1½ and less than 3	3 and less than 5	5	Over 5	Not classified by capacity <sup>1</sup>	Total	1½ and less	Over 1½ and less than 3	3 and less than 5	5	Over 5	Not classified by capacity	Total
<b>New England</b> .....	191,983	22,159	13,479	2,489	3,726	817	234,653	7,000	247	252	84	654	139	8,376
Maine.....	31,519	2,870	1,430	195	143	46	36,203	3,997	—	—	—	—	—	4,136
New Hampshire.....	14,025	1,698	1,445	203	7	—	17,378	1,153	48	47	34	4	—	1,286
Vermont.....	6,780	906	548	75	—	—	8,309	473	3	3	—	—	—	479
Massachusetts.....	81,751	10,966	6,534	907	2,030	771	102,959	248	136	162	48	523	—	1,117
Rhode Island.....	15,424	1,086	1,089	166	—	—	18,416	18	11	13	1	25	—	68
Connecticut.....	42,484	4,633	2,433	943	895	—	51,388	1,111	49	27	1	102	—	1,290
<b>Middle Atlantic</b> .....	504,495	137,044	41,934	15,363	28,134	162	727,182	11,713	5,329	2,752	1,238	2,842	3,038	26,912
New York.....	216,555	64,564	14,413	6,867	11,366	—	313,765	5,559	4,298	1,078	170	2,683	—	13,788
New Jersey.....	89,916	18,781	10,083	1,616	8,208	—	128,604	—	—	—	—	—	3,038	3,038
Pennsylvania.....	144,554	45,653	12,515	5,773	7,743	96	216,334	4,549	862	1,305	826	13	—	7,555
Delaware.....	6,884	888	525	188	181	—	8,666	555	50	28	10	31	—	674
Maryland.....	34,743	3,712	2,245	620	207	—	41,527	719	99	243	215	35	—	1,311
District of Columbia.....	11,843	3,496	2,153	299	429	66	18,286	331	20	98	17	80	—	546
<b>South Atlantic</b> .....	224,538	13,818	6,262	540	91	—	245,249	17,847	2,082	1,697	301	92	3,750	25,769
Virginia.....	58,379	2,982	904	73	6	—	62,344	1,800	175	302	112	1	—	2,390
West Virginia.....	29,536	1,538	1,640	189	13	—	32,916	1,391	221	23	6	20	—	1,661
North Carolina.....	43,242	4,175	2,599	207	39	—	50,262	6,692	837	611	86	39	—	8,265
South Carolina.....	18,341	1,024	354	3	—	—	19,722	809	541	483	45	32	—	1,910
Georgia.....	39,665	1,934	430	20	1	—	42,050	147	65	48	11	—	3,750	4,021
Florida.....	35,375	2,165	335	48	32	—	37,955	7,008	243	230	41	—	—	7,522
<b>East North Central</b> .....	531,016	71,247	24,606	5,120	4,810	1,852	698,651	141,895	4,749	7,014	1,445	1,972	—	157,075
Ohio.....	137,880	20,345	7,940	501	826	—	167,492	40,816	1,268	2,603	335	576	—	45,598
Indiana.....	113,370	4,860	1,766	117	64	1,852	122,019	21,435	913	792	142	261	—	23,543
Illinois.....	145,083	18,577	8,845	3,482	1,833	—	177,820	7,552	811	227	41	272	—	8,903
Michigan.....	96,169	21,743	3,321	638	1,402	—	123,273	71,961	1,398	3,016	789	374	—	77,538
Wisconsin.....	98,514	5,732	2,734	382	685	—	108,047	131	359	376	138	489	—	1,493
<b>West North Central</b> .....	408,507	24,361	9,161	804	168	—	443,001	40,468	1,594	1,557	1,017	697	13,478	58,811
Minnesota.....	95,877	3,871	1,570	282	50	—	101,650	20,298	409	440	210	172	—	21,529
Iowa.....	63,511	9,024	2,162	99	86	—	74,882	2,369	145	205	64	91	—	2,874
Missouri.....	88,668	6,315	3,911	343	28	—	99,265	7,647	601	648	694	418	—	10,008
North Dakota.....	22,957	471	156	6	—	—	23,590	19	3	14	2	1	—	39
South Dakota.....	18,581	789	168	4	—	—	19,542	8,800	46	5	1	—	—	8,852
Nebraska.....	49,636	1,983	630	42	3	—	52,294	—	—	—	—	—	13,478	13,478
Kansas.....	69,277	1,908	564	28	1	—	71,778	1,335	390	245	46	15	—	2,031
<b>East South Central</b> .....	112,139	4,946	2,130	162	19	398	119,794	4,497	584	590	100	21	4,056	9,848
Kentucky <sup>2</sup> .....	28,845	1,957	753	58	8	—	31,621	—	—	—	—	—	—	—
Tennessee.....	29,152	1,322	500	72	—	388	31,434	2,258	438	491	86	21	—	3,294
Alabama.....	30,228	1,052	277	7	1	10	31,575	—	—	—	—	—	4,056	4,056
Mississippi.....	23,914	615	600	25	10	—	25,164	2,239	146	99	14	—	—	2,498
<b>West South Central</b> .....	259,558	29,120	9,856	1,177	307	1,170	301,188	32,841	5,952	5,816	812	174	—	45,595
Arkansas.....	22,068	775	143	2	1	—	22,989	2,145	285	428	146	—	—	3,004
Louisiana.....	37,791	2,159	628	72	33	1,170	41,853	3,281	1,308	1,685	219	—	—	6,493
Oklahoma <sup>3</sup> .....	38,628	4,321	1,576	326	33	—	44,884	—	—	—	—	—	—	—
Texas.....	161,071	21,865	7,509	777	240	—	191,462	27,415	4,359	3,703	447	174	—	36,098
<b>Mountain</b> .....	115,478	7,728	3,007	502	346	56	127,117	12,938	510	428	91	108	60	14,135
Montana.....	19,514	776	203	28	—	—	20,521	—	—	—	—	—	60	60
Idaho.....	12,417	1,176	365	50	22	—	14,030	9,912	73	60	10	—	—	10,055
Wyoming.....	9,163	476	230	10	—	—	9,879	12	1	4	—	—	—	18
Colorado.....	27,368	2,286	514	109	24	56	30,357	225	197	126	23	13	—	584
New Mexico.....	14,354	489	160	15	2	—	15,020	500	71	38	6	4	—	619
Arizona.....	12,851	1,049	521	102	164	—	14,687	1,490	130	127	38	71	—	1,856
Utah.....	13,980	1,159	731	134	92	—	16,096	221	30	59	12	3	—	325
Nevada.....	5,831	317	283	54	42	—	6,527	578	8	14	1	17	—	618
<b>Pacific</b> .....	274,271	30,812	18,503	2,387	6,455	52	332,480	56,984	4,658	3,675	1,284	2,151	—	68,755
Washington.....	52,337	6,845	3,279	456	909	—	63,826	3,617	182	245	44	208	—	4,296
Oregon.....	27,224	4,307	1,502	286	1,158	—	34,477	797	283	343	85	198	—	1,706
California.....	194,710	19,660	13,722	1,645	4,388	52	234,177	52,570	4,193	3,087	1,155	1,748	—	62,753
<b>Grand total</b> .....	2,681,985	341,285	128,938	28,544	44,056	4,507	3,229,315	326,183	25,705	23,781	6,372	8,714	24,521	415,276

<sup>1</sup> In all cases, these vehicles are unclassified tractor trucks.  
<sup>2</sup> Full trailers prohibited. Semitrailers registered with tractor trucks.  
<sup>3</sup> No registration of trailers or semitrailers in 1932.

4. In those States which imposed unusually high registration fees on heavy trucks the number of such vehicles was almost invariably small and the revenues correspondingly low. This was particularly true in a number of Southern States in which high registration fees were combined with high gasoline taxes.

In Georgia, for example, the rates for trucks of over 5 tons capacity were as follows: 6 tons, \$375; 7 tons, \$750; over 7 tons, \$1,125. Against this imposing array of fees we find but one truck of more than 5 tons capacity registered in 1932—a 6-ton truck, paying \$375.

In North Dakota, where the rate on 5-ton trucks was \$400 and on those over 5 tons, \$600 to \$1,500, with reductions after the first year of registration, we find six 5-ton trucks paying a total of \$1,404, and none over 5 tons. In South Dakota, where the schedule of rates, based on chassis weights, was also very high, only four 5-ton trucks were registered, with total collections of \$1,300.

One apparent effect of high registration fees was to bring about the registration of heavy trucks for only a part of the year. In Alabama only one truck of more than 5 tons capacity was registered, a 6-ton truck paying \$187.50, or one-fourth the annual fee of \$750. In Arkansas, similarly, one 6-ton truck paid \$100, the annual rate being \$400. In Texas a rate of \$4 per hundred-weight applied to trucks having gross weights of 26,000 pounds or more was apparently not productive, as the average payment reported for trucks of more than 5 tons capacity was only \$144.23.

In Louisiana the law provided that trucks with a net carrying capacity greater than 5 tons should be charged \$150 for each thousand pounds carrying capacity in excess of 5 tons, in addition to a fee of 68 cents per horsepower and \$32 per ton for the first 5 tons (\$50 per ton for common carriers). City trucks were exempted from this schedule and paid at the rate of \$10 per ton plus 68 cents per horsepower. No private trucks were reported as paying the high rates cited above. Five common carriers having capacities of more than 5 tons paid a total of \$323. Of city trucks there were 28 of more than 5 tons capacity and the total collections from them were \$3,050. Thus we have a relatively low rate of registration fee producing nearly 10 times the revenue obtained from a very high rate applied to vehicles of the same capacity group.

The conclusion is inescapable that such unusually high rates, if effective at all, succeed only in discouraging or virtually prohibiting the registration of heavy vehicles. A more logical procedure in devising a schedule of registration fees for a given State would seem to be, first, to fix definitely the maximum load to be permitted on the roads, and then to adjust the scale of fees with a view of obtaining a maximum yield. It is a recognized principle that heavy vehicles should pay the additional costs of highways designed to support their loads, so far as those costs can be determined. It is not always realized that one of the variables entering into the computation is the number of such vehicles which may be registered in a State. Laws which impose exorbitant fees on heavy trucks tend to defeat the purpose for which they were enacted, if that purpose was to increase the income of the State.

5. In a comparison of the registration of heavy trucks with the mileage of high-type State highways it was found that in a number of the States having very low registrations in this class of vehicles, there are considerable mileages of high-type road, and particularly of portland-cement concrete. Conspicuous examples of this situation are shown in table 9.

One could hardly say that the 1,922 miles of concrete road in South Carolina were built primarily to accommodate the three 5-ton trucks which were registered, or even the 357 trucks which had capacities of 3 tons or more. Similarly, in Alabama, Arkansas, Georgia, and even in Indiana, the number of such trucks is so small as to be a negligible factor in the traffic on the high-type roads. It should also be remembered that a large proportion of the movement of heavy trucks takes place within the limits of cities.

TABLE 9.—Comparison of heavy trucks registered with mileage of high-type State highways existing in 1932

State	Number of trucks of 5 tons capacity or more	High-type State highways <sup>1</sup> in 1932	
		All high-type	Portland cement concrete
Alabama.....	8	1,049	730
Arkansas.....	3	2,002	1,032
Florida.....	80	1,398	528
Georgia.....	21	1,747	1,035
Indiana.....	181	4,174	3,430
Kentucky.....	66	1,627	736
Louisiana.....	105	2,041	1,795
South Carolina.....	3	2,370	1,922
Tennessee.....	72	2,251	1,190

<sup>1</sup> From annual table published by the Bureau, "State highway mileage existing in 1932."

Very different relations are shown if we take certain other States, such as New York, with 18,233 trucks of 5 tons or more capacity, and 10,716 miles of high-type State highways; Wisconsin, with 1,067 such trucks and 4,138 high-type miles; or Wyoming, with 240 trucks of 3 tons or more capacity, 10 of 5 tons or more, and 35 miles of high-type surface. Nevertheless, the inference is very clear that concrete and other high-type surfaces are constructed primarily in response to the present and anticipated demands of the motoring public in general, rather than specifically to support the traffic of heavy trucks.

#### FOR-HIRE CARRIERS OF PROPERTY

The analysis of the reports submitted in this survey and of laws in effect in 1932 indicates that for-hire carriers of property were, in one way or another, recognized as separate classes of vehicles in all States except Maine, New Hampshire, Connecticut, New York, New Jersey, Delaware, the District of Columbia, and Nebraska. Laws were passed in Maine and New Hampshire providing for the regulation of for-hire carriers in 1933.

A number of States which have such regulations failed to report separately the numbers of for-hire vehicles or their payments of fees; these States were Rhode Island, Pennsylvania, Indiana, Illinois, Tennessee, and Mississippi. In all, 35 States reported for-hire carriers in such a manner that they could be included in the tabulations of national totals, percentages, and averages.

The statisticians for each State were requested to report contract carriers and common carriers separately. This could not be done in all cases, because of the lack of uniformity among the States in the classes into which property carriers are divided. Some States recognize and regulate only one class of for-hire carriers, while others have three or more. There is no universally accepted definition of a common carrier, and it was necessary in a number of cases to exercise judgment as to the class to which a given group of vehicles should be assigned. It was decided to regard the term "contract carrier" as the more general classification, and to include in that group all for-hire carriers other than those definitely assignable to the common-carrier class. Where contract and common carriers were reported together, they were assigned to the contract group. This was done in the case of three States, Arkansas, Ohio, and West Virginia, and probably in the case of Massachusetts, which reported only contract carriers.

Contract-carrier trucks were reported in 26 States, and contract-carrier trailers in 20 States. Thirty-one States reported common-carrier trucks and 24 States reported common-carrier trailers. A segregation of for-hire property carriers into contract and common was available for trucks in 22 States and for trailers in 16 States.

The tabulation of contract carriers also includes a small number of private carriers operating in commercial service and subject to special taxation.

**SPECIAL TAXATION IMPOSED ON FOR-HIRE CARRIERS IN MAJORITY OF STATES**

Of the 41 States which recognized for-hire carriers of property as a special class of vehicle, all but five—Vermont, Massachusetts, Rhode Island, Indiana, and Illinois—imposed higher taxes in 1932 upon contract or common carriers, or both, than those which privately operated carriers were required to pay, although in a few States certain classes of private carriers were included in the increased taxation. In some States the increase took the form of higher registration fees; in other States special fees, such as have been described in the case of public-carrier busses, were imposed.

*Excess registration fees.*—Registration fees in excess of the private-carrier rate were paid by contract-carrier trucks in Florida, Idaho, North Carolina, North Dakota, South Carolina, Virginia, and West Virginia. Higher rates were also paid by for-hire carriers in Arkansas, which reported contract and common carriers together. In Arkansas and Florida special fees were paid in addition to the excess registration fees. In Massachusetts, Minnesota, and Missouri contract carriers paid registration fees at the private-carrier rate, and no special fees.

Common-carrier trucks paid excess registration fees in the following States: Florida, Idaho, Louisiana, Minnesota, North Carolina, and North Dakota. Additional special fees were paid in all these States except Louisiana.

In Maryland, South Carolina, and West Virginia, common carriers were not required to pay registration fees, ton-mile taxes being assessed in lieu thereof. In California common carriers paid a receipts tax and no registration fees. In New Mexico the rate of registration fee on common carriers was one-half the private rate.

*Mileage taxes.*—Taxes based on mileage traveled were imposed on contract carriers of property in Florida, Georgia, Kentucky, and Oklahoma; and on common carriers in Alabama, Florida, Georgia, Kentucky, New Mexico, and Oklahoma. In Tennessee and Mississippi for-hire carriers and certain classes of private carriers were required to pay a mileage tax. In Oklahoma class C motor carriers (private carriers who make a charge for the delivery of goods) were also required to pay a mileage tax.

In all these States except Oklahoma the rate per mile increased with the weight or capacity of the vehicle. In Alabama, for example, the rates varied from ½ cent per mile for vehicles under 2 tons capacity to 2 cents per mile for trucks of 5 tons capacity or more. In New Mexico the rates varied from ¼ cent per mile for vehicles of 1½ tons capacity or less to 3 cents per mile for vehicles of more than 5 tons capacity. In Oklahoma the rate was ½ cent per mile for contract and class C carriers, and ⅓ cent per mile for common carriers.

*Ton-mile taxes.*—Ton-mile taxes were imposed on contract carriers of property in Colorado, Kansas,

Utah, Wisconsin, and Wyoming, and on common carriers in Colorado, Iowa, Kansas, Maryland, Oregon, South Carolina, Utah, West Virginia, Wisconsin, and Wyoming. In Wisconsin and Kansas certain classes of private carriers were also required to pay a ton-mile tax.

In 3 States—Wyoming, Colorado, and Utah—the rates were based on revenue ton-miles, that is, the sum of the products of all revenue cargoes times the miles each cargo was carried. The rate in Wyoming was ⅓ cent per ton-mile; in Colorado, ½ cent; and in Utah, ⅓ cent on hard-surfaced roads and ¼ cent on other roads.

In West Virginia the ton-mile tax on common carriers was based on the capacity of the vehicle times the scheduled mileage. In the remaining States the gross ton-mile was the basis of the tax. Of these States, the law in Iowa and Oregon stipulated that the gross weight used should include the weight of the vehicle and its maximum load. In Kansas the gross weight included the weight of the vehicle plus twice its capacity load. In Maryland, South Carolina, and Wisconsin, the rated capacity was added to the weight of the vehicle in computing the tax.

The rates charged per ton-mile in these States varied from ⅓ cent in Kansas to ½ cent charged in South Carolina against trucks having gross weights of more than 7 tons.

*Receipts taxes.*—Taxes on gross receipts were imposed on contract carriers of property only in Arkansas, which reported contract and common carriers together, and in Pennsylvania, which imposed the tax on all for-hire vehicles, but did not segregate for-hire carriers of property from other carriers. Receipts taxes were imposed on common carriers in Arizona, California, Idaho, North Carolina, South Dakota, Virginia, and Washington. In North Carolina the payments of registration fees were credited against the gross receipts tax, and in California the receipts tax was in lieu of registration fees. The rates paid in these nine States varied from 0.8 percent in Pennsylvania to 6 percent in North Carolina.

*Other special fees.*—Fees for the issuance of certificates of convenience and necessity, or equivalent permits, were paid by both contract and common carriers in Colorado, Georgia, Kentucky, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming; and by common carriers only in Alabama, Minnesota, North Dakota, and Wisconsin. Franchise or permit fees at flat rates per vehicle were assessed on both contract and common carriers in Georgia, Montana, Texas, and Wisconsin, on contract carriers in Iowa, and on for-hire carriers operating as transfer companies in Tennessee. Franchise or special license fees increasing with the weight or capacity of the vehicle were paid by contract and common carriers in Michigan, Ohio, and Nevada; by contract carriers only in Oregon and South Dakota; and by common carriers only in Missouri, Oklahoma, and Tennessee.

**ONLY A PART OF ALL FOR-HIRE CARRIERS REPORTED**

In all, there were reported 96,670 for-hire carriers of property, consisting of 87,825 trucks and 8,845 trailers and semitrailers. The tabulation of these vehicles by class of service is as follows:

For-hire trucks and tractor trucks:	
Contract-carrier.....	70, 956
Common-carrier.....	16, 869
For-hire trailers and semitrailers:	
Contract-carrier.....	5, 008
Common-carrier.....	3, 837

TABLE 10.—State taxes imposed on contract carriers of property in 1932; national totals and averages

REGISTRATION FEES AND MOTOR-FUEL TAXES

Rated capacity	Number registered	Estimated payments of motor-fuel taxes		Regular registration fees			Excess registration fees			Total registration fees			Total registration fees and motor-fuel taxes		
		Amount	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount	Average per vehicle
<i>Tons</i>															
Trucks and tractor trucks:															
1½ and less	45,306	\$2,412,710	\$53.25	45,306	\$855,760	\$18.89	14,043	\$223,161	\$15.89	45,306	\$1,078,921	\$23.82	45,306	\$3,491,631	\$77.07
Over 1½ and less than 3	14,613	996,516	68.20	14,613	601,485	41.16	2,341	67,552	28.86	14,613	669,037	45.78	14,613	1,665,553	113.98
3 and less than 5	7,794	690,141	88.55	7,794	525,591	67.44	1,962	62,635	31.92	7,794	588,226	75.47	7,794	1,278,367	164.02
5	800	90,225	112.78	800	74,595	93.24	176	10,316	58.61	800	84,911	106.14	800	175,136	218.92
Over 5	1,303	169,493	130.08	1,303	114,206	87.65	23	2,006	87.22	1,303	116,212	89.19	1,303	285,705	219.27
Total classified	69,816	4,359,085	62.44	69,816	2,171,637	31.11	18,545	365,670	19.72	69,816	2,537,307	36.34	69,816	6,896,332	98.78
Not classified by capacity <sup>1</sup>	24	2,142	89.25	24	382	15.92				24	382	15.92	24	2,524	105.17
Not segregated <sup>2</sup>	1,116	80,254	71.91	1,116	31,418	28.15				1,116	31,418	28.15	1,116	111,672	100.06
Undistributed fees <sup>3</sup>					2,518						2,518			2,518	
Total	70,956	4,441,481	62.59	70,956	2,205,955	31.09	18,545	365,670	19.72	70,956	2,571,625	36.24	70,956	7,013,106	98.84
Trailers and semitrailers:															
1½ and less	1,111			1,111	10,399	9.36	526	4,837	9.20	1,111	15,236	13.71			
Over 1½ and less than 3	943			943	18,953	20.10	523	14,390	27.51	943	33,343	35.36			
3 and less than 5	1,847			1,847	81,085	43.90	578	22,399	38.75	1,847	103,484	56.03			
5	485			485	28,113	57.96	161	6,307	39.17	485	34,420	70.97			
Over 5	622			622	40,457	65.04	9	1,937	215.22	622	42,394	68.16			
Total	5,008			5,008	179,007	35.74	1,797	49,870	27.75	5,008	228,877	45.70			

SPECIAL FEES

Rated capacity	Mileage or ton-mile taxes			Receipts taxes			Franchise fees, certificate fees, and other miscellaneous special fees			Total special fees and excess registration fees			All fees and taxes		
	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount	Average per vehicle
<i>Tons</i>															
Trucks and tractor trucks:															
1½ and less	1,073	\$25,767	\$24.01	888	\$17,789	\$20.03	10,438	\$170,021	\$16.29	24,591	\$436,738	\$17.76	45,306	\$3,705,208	\$81.78
Over 1½ and less than 3	706	36,149	51.20	225	6,845	30.42	7,350	173,468	23.60	9,727	284,014	29.20	14,613	1,882,015	128.79
3 and less than 5	333	28,494	85.57	43	1,962	45.63	3,106	136,055	43.80	5,104	229,146	44.90	7,794	1,444,878	185.38
5	57	4,134	72.53	1	73	73.00	289	18,504	64.03	471	33,027	70.12	800	197,847	247.31
Over 5	5	714	142.80				461	43,442	94.23	488	46,162	94.59	1,303	329,861	253.16
Total classified	2,174	95,258	43.82	1,157	26,669	23.05	21,644	541,490	25.02	40,381	1,029,087	25.48	69,816	7,559,809	108.28
Not classified by capacity <sup>1</sup>	10	825	82.50				10	7	70	10	832	83.20	24	3,356	139.83
Not segregated <sup>2</sup>	647	67,330	104.06				1,116	13,371	11.98	1,116	80,701	72.31	1,116	192,373	172.38
Undistributed fees <sup>3</sup>							279	1,395	5.00	279	1,395	5.00		3,913	
Total	2,831	163,413	57.72	1,157	26,669	23.05	23,049	556,263	24.13	41,786	1,112,015	26.61	70,956	7,759,451	109.36
Trailers and semitrailers:															
1½ and less	43	965	22.44	125	1,837	14.70	311	1,828	5.88	837	9,467	11.31	1,111	19,866	17.88
Over 1½ and less than 3	45	1,317	29.27	59	2,109	35.75	231	3,139	13.59	754	20,955	27.79	943	39,908	42.32
3 and less than 5	55	2,039	37.07	195	9,964	51.10	1,035	31,042	29.99	1,614	65,444	40.55	1,847	146,529	79.33
5	5	97	19.40	93	6,833	73.47	216	9,580	44.35	377	22,817	60.52	485	50,930	105.01
Over 5							245	11,315	46.18	254	13,252	52.17	622	53,709	86.35
Total classified	148	4,418	29.85	472	20,743	43.95	2,038	56,904	27.92	3,826	131,935	34.39	5,008	310,942	62.09
Undistributed fees <sup>3</sup>							76	380	5.00	76	380	5.00		380	
Total	148	4,418	29.85	472	20,743	43.95	2,114	57,284	27.10	3,912	132,315	33.82	5,008	311,322	62.16

<sup>1</sup> See p. 191.

<sup>2</sup> See p. 191. Estimated payments of registration fees and gasoline taxes by these vehicles are included.

<sup>3</sup> See pp. 191 and 192.

These figures represent only a part of the total number of the property carriers in the United States operating as contract and common carriers in 1932. Thirty-five States are represented in the totals, but those which are omitted—Maine, New Hampshire, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, the District of Columbia, Indiana, Illinois, Nebraska, Tennessee, and Mississippi—include several of the most populous States in the Union. In view of this fact it would be hazardous to make an estimate of the total number of for-hire carriers operating in 1932. The validity of such an estimate would be further impaired by the fact that nine States reported common carriers but no contract carriers. The wide differences

in State laws and regulations and the various classes of operation, such as city hauling and the hauling of farm products, which are exempted in a number of States, indicate that the totals obtained in this survey are considerably below the total number of for-hire carriers in the 35 States reporting such vehicles.

The National Code Authority for the trucking industry, operating under the National Recovery Administration, is conducting a registration of vehicles engaged in the transportation of property for hire. This registration is designed to show the number of vehicles actually operating for hire, and not the number regulated by law. The registration was not complete at the time of preparation of this report. The total

TABLE 11.—State taxes imposed on common carriers of property in 1932; national totals and averages

REGISTRATION FEES AND MOTOR-FUEL TAXES

Rated capacity	Number registered	Estimated payments of motor-fuel taxes		Regular registration fees			Excess registration fees			Total registration fees			Total registration fees and motor-fuel taxes		
		Amount	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount	Average per vehicle
<i>Tons</i>															
Trucks and tractor trucks:															
1½ and less	6,755	\$411,732	\$60.95	6,162	\$114,395	\$18.56	862	\$23,420	\$27.17	6,162	\$137,815	\$22.37	6,755	\$549,547	\$81.35
Over 1½ and less than 3	4,162	333,186	80.06	3,515	141,776	40.33	449	19,309	43.00	3,515	161,085	45.83	4,162	494,271	118.76
3 and less than 5	2,686	260,044	96.82	2,161	146,339	67.72	153	17,238	112.67	2,161	163,577	75.70	2,686	423,621	157.71
5	430	49,576	115.29	306	30,727	100.42	13	3,055	235.00	306	33,782	110.40	430	83,358	193.86
Over 5	640	90,707	141.73	393	52,087	132.54	3	1,529	509.67	393	53,616	136.43	640	144,323	225.50
Total classified	14,673	1,145,245	78.05	12,537	485,324	38.71	1,480	64,551	43.62	12,537	549,875	43.86	14,673	1,695,120	115.53
Not classified by capacity <sup>1</sup>	98	8,418	85.90	46	1,150	25.00				46	25.00	25.00	98	9,568	97.63
Not segregated <sup>2</sup>	2,098	101,762	48.50	2,098	49,901	23.79				2,098	49,901	23.79	2,098	151,663	72.29
Total	16,869	1,255,425	74.42	14,681	536,375	36.54	1,480	64,551	43.62	14,681	600,926	40.93	16,869	1,856,351	110.05
Trailers and semitrailers:															
1½ and less	452			358	4,629	12.93	147	1,784	12.14	358	6,413	17.91			
Over 1½ and less than 3	682			587	15,731	26.80	178	2,943	16.53	587	18,674	31.81			
3 and less than 5	1,378			1,108	54,448	46.62	155	7,375	47.58	1,108	61,823	52.93			
5	519			351	24,684	70.32	59	6,306	106.88	351	30,990	88.29			
Over 5	806			392	31,549	80.48	24	2,308	96.17	392	33,837	86.37			
Total	3,837			2,856	131,041	45.88	563	20,716	36.80	2,856	151,757	53.14			

SPECIAL FEES

Rated capacity	Mileage or ton-mile taxes			Receipts taxes			Franchise fees, certificate fees, and other miscellaneous special fees			Total special fees and excess registration fees			All fees and taxes		
	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount collected	Average per vehicle	Number of vehicles	Amount	Average per vehicle
<i>Tons</i>															
Trucks and tractor trucks:															
1½ and less	2,488	\$119,994	\$48.23	1,744	\$47,494	\$27.23	3,976	\$76,539	\$19.25	6,338	\$267,447	\$42.20	6,755	\$793,574	\$117.48
Over 1½ and less than 3	1,732	130,398	75.29	997	57,605	57.78	2,380	66,926	28.12	3,918	274,238	69.99	4,162	749,200	180.01
3 and less than 5	920	116,595	126.73	820	72,483	88.39	1,316	53,912	40.97	2,536	260,228	102.61	2,686	666,611	248.18
5	198	33,485	169.12	115	16,567	144.06	211	7,731	36.64	420	60,833	144.85	430	141,141	328.23
Over 5	260	79,552	305.97	289	69,738	241.31	112	7,931	70.81	634	158,750	250.39	640	301,544	471.16
Total classified	5,598	480,024	85.75	3,965	263,887	66.55	7,995	213,039	26.65	13,846	1,021,501	73.78	14,673	2,652,070	180.74
Not classified by capacity <sup>1</sup>	46	2,158	46.91				46	56	1.22	46	2,214	48.13	98	11,782	120.22
Not segregated <sup>2</sup>				2,098	23,471	11.19	2,098	13,500	6.43	2,098	36,971	17.62	2,098	188,634	89.91
Undistributed fees <sup>3</sup>	551	35,821	65.01				267	10,680	40.00	551	46,501	84.39		46,501	
Total	6,195	518,003	83.62	6,063	287,358	47.40	10,406	237,275	22.80	16,541	1,107,187	66.94	16,869	2,898,987	171.85
Trailers and semitrailers:															
1½ and less	204	12,043	59.03	209	6,775	32.42	164	4,030	24.57	422	24,632	58.37	452	29,261	64.74
Over 1½ and less than 3	235	12,345	52.53	260	13,928	53.57	360	6,938	19.27	652	36,154	55.45	682	51,885	76.08
3 and less than 5	256	15,402	60.16	416	34,851	83.78	819	31,730	38.74	1,309	89,358	68.26	1,378	143,806	104.36
5	40	4,915	122.88	215	27,431	127.59	228	15,545	68.18	456	54,197	118.85	519	78,881	151.99
Over 5	156	33,987	217.87	485	130,032	268.11	224	14,620	65.27	785	180,947	230.51	806	212,496	263.64
Total classified	891	78,692	88.32	1,585	213,017	134.40	1,795	72,863	40.59	3,624	385,288	106.32	3,837	516,329	134.57
Undistributed fees <sup>3</sup>	154	7,227	46.93				154	770	5.00	154	7,997	51.93		7,997	
Total	1,045	85,919	82.22	1,585	213,017	134.40	1,949	73,633	37.78	3,778	393,285	104.10	3,837	524,326	136.65

<sup>1</sup> See p. 191.

<sup>2</sup> See p. 191. Estimated payments of registration fees and gasoline taxes by these vehicles are included.

<sup>3</sup> See pp. 191 and 192.

reported as of September 21, 1934, was 244,573. This is the figure for load-carrying vehicles, i.e., trucks, trailers, and semitrailers, but not tractor trucks.<sup>6</sup>

PAYMENTS BY PROPERTY CARRIERS ANALYZED

National totals and averages for contract and common carriers of property are given in tables 10 and 11, respectively. Certain items in these tables require explanation. In order to emphasize the fact that certain States exact higher registration fees from for-hire carriers than from those privately owned and operated, the excess payments in those States have been tabulated separately. Total payments of registration fees, however, are also given. In order to show the total amounts paid in additional fees, special fees and

excess registration fees are tabulated together under the heading "Total special fees and excess registration fees".

In table 1 and in the discussion on page 191, attention was called to a group of contract and common carriers in Montana, Oklahoma, and South Dakota, which were not segregated from private carriers, although their payments of special fees were given separately. In tables 10 and 11 these vehicles are tabulated separately; and estimates have been made of their payments of gasoline taxes and registration fees on the basis of the average payments by other classes of trucks in Montana, Oklahoma, and South Dakota.

The special fees tabulated do not include all payments of such fees by for-hire carriers. Among the payments which could not be properly allocated were receipts

<sup>6</sup> A.T.A. Registration Bulletin, Sept. 24, 1934; published by the American Trucking Association.

taxes paid by all for-hire carriers in Pennsylvania, ton-mile taxes paid by for-hire carriers and certain classes of private carriers in Kansas, mileage taxes and privilege taxes in Tennessee, and certificates fees in Texas and New Mexico.

Payments of registration fees and special fees by for-hire carriers in the individual States will be found in tables 14 and 15, where all such payments are tabulated. A few examples of average payments in different States will serve to illustrate the range in charges against for-hire carriers.

*Contract carriers.*—Average payments of registration fees by contract-carrier trucks ranged from \$10.24 in Virginia to \$89 in Ohio. Average payments of all fees and taxes varied from \$55 in Missouri to \$256 in Nevada. As in the case of privately operated trucks, the average payments in most States increased rapidly with the size of the vehicle. Thus, average payments of registration fees by trucks of 1½ tons capacity and less varied from \$8.79 in Virginia to \$41 in Oregon. For trucks of more than 5 tons capacity the range was from \$35 in Massachusetts to \$313 in Iowa. For all fees and taxes, payments in the light-tonnage group varied from \$42 in Missouri to \$214 in Florida, and those in the heavy-tonnage group from \$163 in Massachusetts to \$759 in Kentucky.

*Common carriers.*—Average payments of registration fees by common-carrier trucks varied from \$13.56 in Missouri to \$84 in Oregon; and of all fees and taxes, from \$99 in Missouri to \$445 in Florida. The range of average payments by trucks of 1½ tons capacity and less was as follows: in registration fees, from \$10.50 in Missouri to \$47 in Idaho; in all fees and taxes, from \$70 in Colorado to \$408 in Florida. In the case of the heaviest capacity group (5 tons or more) registration fees varied from \$33 in Missouri to \$337 in Iowa, and all fees and taxes from \$276 in Louisiana to \$1,031 in Minnesota.

#### COMPARISON OF FEES REQUIRED FOR TYPICAL COMMON-CARRIER TRUCK OPERATION

The average payments by common carriers, as reported, do not accurately reflect the differences in tax rates among the States. Even if the bases and rates of taxation were the same for all States, average payments would vary because of such factors as differences in the frequency of part-year registrations, average mileage traveled, the volume of business, and the proportion of light and heavy trucks.

A few examples of the total legal payments required of a typical common-carrier truck operating under a given set of conditions will serve to illustrate the extreme range in taxation. In this computation we assume a truck of 5 tons capacity, operating 15,000 miles per year. Table 4 gives the net weight of such a truck as approximately 11,700 pounds and the gross weight as 21,700 pounds. The assumed gasoline consumption, at 5 miles per gallon, is 3,000 gallons. Comparative figures have been computed for the States of Florida, Michigan, Kansas, and New York.

This common-carrier truck would have paid fees at the following rates in the four States in 1932:

Florida: Registration fees at \$2 per 100 pounds gross weight, a gasoline tax of 7 cents per gallon, and a mileage tax of 2 cents per mile.

Michigan: Registration fees at \$1.25 per 100 pounds net weight, a gasoline tax of 3 cents per gallon, and a public utility permit fee of \$1 per 100 pounds net weight.

Kansas: Registration fees of \$100, a gasoline tax of 3 cents per gallon, and a ton-mile tax of 0.5 mill per gross ton-mile, gross tonnage being twice the capacity plus net weight.

New York: Registration fees of 80 cents per 100 pounds net weight (same rate for all classes), and a gasoline tax of 2 cents per gallon until March 1 and 3 cents after that date. On the basis of the reported tax-earned gallonage, the average rate for the year was 2.86 cents.

The rates in Florida would have resulted in the following payments for the truck specified:

Registration fees.....	\$434
Gasoline tax.....	210
Mileage tax.....	300
Total.....	944

Total payments in the four States, computed in this manner, are as follows:

Florida.....	\$944.00
Michigan.....	353.25
Kansas.....	308.88
New York.....	179.40

#### DISPOSITION OF STATE MOTOR-VEHICLE FUNDS

In table 12 there is given an analysis of the purposes to which funds derived from State motor-vehicle fees and gasoline taxes were devoted in 1932. No data of this character were obtained in the survey; but the regular motor-vehicle and gasoline-tax tables published annually by the Bureau (table MV-2 and table G-1) give the disposition, according to State laws, of the funds reported each year by the States. Table 12 was made up by combining the data on disposition of funds given in these two tables for the year 1932. Various small differences exist between the data given in table MV-2, 1932, as published in 1933, and the data obtained in this survey. Only a part of the special fees paid by for-hire carriers were included in the earlier tabulation; and on the other hand, certain items such as dealers' licenses and fines and penalties were included in table MV-2 and omitted from the survey. The gasoline-tax table also includes certain miscellaneous receipts not carried in the survey totals. These differences tend to balance, with the result that the total given in table 12, \$838,412,410, differs very little from the total of State fees and taxes, \$838,830,978, obtained as a result of this survey.

A total of \$20,383,242 was allotted from the motor-vehicle and gasoline-tax receipts for costs of collection and administration. This is not the total expended for these purposes, as a number of States make special appropriations for administration or pay collection costs out of other funds. The total also includes certain special items, such as reserves for refunds of gasoline tax, which enter largely as a matter of bookkeeping.

The sum of \$457,700,193, or 54.59 percent of the total, was assigned to the State highway departments for construction and maintenance of State highways and bridges. In addition, \$64,779,967 was devoted to the payment of interest and retirement charges on State highway bonds. The amount thus allotted to State highways was 62.32 percent of the total motor-vehicle and gasoline-tax receipts.

County and local road administrations were allotted \$170,038,290, or 20.28 percent, and \$25,286,375, or 3.02 percent, was assigned for interest and retirement of county road bonds.

The amount allocated for expenditure on city streets was \$18,144,645, or 2.16 percent of the total.

Other items allocated to construction and maintenance of roads and bridges were \$1,039,904, assigned in Massachusetts to the Metropolitan District Commission for the construction and maintenance of park boulevards, and \$196,000, assigned to the New Jersey Free Bridge Commission. Two additional items may

TABLE 12.—Disposition of funds obtained from State taxation of motor vehicles in 1932<sup>1</sup>

State	For collection and administration <sup>2</sup>	For construction and maintenance on rural roads		For highway bonds		For city streets	For State highway patrol	For other purposes related to roads and streets	For purposes not related to roads or streets				Total motor-vehicle fees and motor-fuel taxes <sup>4</sup>	
		State highways	Local roads	State highway bond payments	County road bond payments				Schools	Unemployment relief	To general funds <sup>3</sup>	Other purposes		
Alabama	\$149,450	\$3,475,321	\$3,570,714	\$2,843,809										\$10,039,294
Arizona	174,797	2,426,570	1,008,622											3,609,989
Arkansas	194,726	1,025,164	1,048,828	3,969,138	\$1,723,143									7,960,999
California	1,664,862	27,015,372	14,990,429											45,520,220
Colorado	158,272	4,710,625	2,385,057											7,416,203
Connecticut	1,032,587	11,653,875				\$162,249								12,686,462
Delaware		1,247,527		478,779										2,108,546
Florida	350,266	6,220,638	864		6,218,047									19,799,499
Georgia	4,200	11,590,657	1,959,102											15,764,337
Idaho	96,165	2,128,586	1,341,912											3,904,556
Illinois	182,098	24,002,038	12,023,984	8,362,613										45,720,793
Indiana	395,678	18,117,949	3,124,126			1,041,375	1,150,000							22,830,090
Iowa	619,859	14,548,787	3,498,780		1,600,000		150,962							20,640,825
Kansas	214,264	9,045,212	3,600,000											12,859,476
Kentucky	438,834	11,837,945	579,964											12,856,743
Louisiana	139,000	6,914,205		3,707,375						830,072				12,420,724
Maine	478,450	2,769,091	2,116,239	1,704,910										7,211,014
Maryland	357,639	8,414,384				2,103,595	142,324							10,950,618
Massachusetts	1,568,341	19,636,155		495,496			312,028	\$1,039,904						23,086,924
Michigan	1,067,592	23,392,187	11,335,287	4,082,059			389,914							40,296,322
Minnesota	315,210	12,996,555	3,333,519	423,950	2,996,223									20,122,254
Mississippi	219,262	2,978,798	4,229,487											7,981,703
Missouri	658,289	13,196,941		4,919,027										18,774,257
Montana	75,728	2,513,150	1,250,047	56,134										3,984,330
Nebraska	117,856	6,819,738	4,221,023											11,158,617
Nevada	30,541	977,177		114,839										1,122,557
New Hampshire	257,103	3,826,124		659,710										4,742,937
New Jersey	377,201	9,671,794	7,310,000	1,260,000		5,000,000	66,880	196,000		88,116,024				32,087,899
New Mexico	99,071	1,324,258	281,363	1,170,168										2,980,371
New York	960,760	22,417,669	15,901,228											83,852,628
North Carolina	379,501	3,111,319	6,417,508	8,453,741	484,635		151,424	124,587						19,351,733
North Dakota	98,015	2,227,730	1,311,379											3,637,124
Ohio	685,532	23,872,054	21,683,703			6,452,862								52,694,151
Oklahoma	186,073	9,139,670	5,124,809											14,471,733
Oregon	391,894	5,866,699	1,473,581	4,128,172			279,000							12,139,346
Pennsylvania	2,636,670	46,188,457	5,056,398	6,044,150			690,955							60,616,630
Rhode Island	278,193	2,705,120	772,576	285,331										4,041,220
South Carolina	65,900	2,228,351	1,037,488	93,027	5,096,353			174,278						8,695,397
South Dakota	111,556	3,405,398	1,890,684											5,407,638
Tennessee	206,757	6,840,098	3,458,305	1,902,067	1,729,153			191,921						16,057,454
Texas	741,261	22,105,583	8,402,797		2,203,177					6,765,939				40,218,757
Utah	69,663	2,167,352		737,500										2,974,515
Vermont		3,808,061		285,000										4,093,061
Virginia	385,883	13,421,704	3,242,880											17,050,467
Washington	605,628	9,957,797	2,582,832					79,800						13,226,057
West Virginia	199,849	1,156,909		7,657,168										9,013,926
Wisconsin	822,206	11,141,318	8,088,269		2,853,404	597,360								25,229,723
Wyoming		1,462,081	354,506	278,000										2,094,587
Dist. of Columbia	120,560					2,787,204								2,907,764
Total	20,383,242	457,700,193	170,038,290	64,779,967	25,286,375	18,144,645	5,597,076	1,575,594	14,522,113	19,546,456	39,652,339	1,186,120		838,412,410
Percentage distribution	2.43	54.59	20.28	7.73	3.02	2.16	0.67	0.19	1.73	2.33	4.73	0.14		100.00

<sup>1</sup> This table was made up from the annual tables published by the Bureau, table MV-2, motor vehicle receipts, 1932, and table G-1, State gasoline taxes, 1932. Many of the notes accompanying these tables have been omitted, and the reader is referred to them for more detailed description of the items in this table.

<sup>2</sup> Many States pay collection cost from other State funds; for details see table MV-2 and table G-1. Administration cost includes balances allocated to reserve funds for administrative purposes.

<sup>3</sup> To State general fund unless otherwise noted.

<sup>4</sup> The totals given in this column are the sum of the total gross receipts from motor-vehicle taxes, \$324,273,510, as given in table MV-2, 1932, and the grand total earnings under the gasoline-tax laws, \$514,138,900, as given in table G-1, 1932. The latter sum includes \$1,091,661 of receipts under gasoline-tax laws other than gasoline taxes paid by motor vehicles.

<sup>5</sup> Expenses of transportation of tax division of board of equalization.

<sup>6</sup> Aviation fund collected from aviation gasoline tax.

<sup>7</sup> To county general fund.

<sup>8</sup> To boards of commissioners of ports of New Orleans and Lake Charles Harbor.

<sup>9</sup> To conservation department for oyster propagation.

<sup>10</sup> To metropolitan district commission for construction and maintenance of park boulevards.

<sup>11</sup> For motor-vehicle liability insurance expenses.

<sup>12</sup> From aviation gasoline tax allocated to aeronautics fund.

<sup>13</sup> For sea walls protecting roads.

<sup>14</sup> For referendum expenses and experimental equipment.

<sup>15</sup> To State traffic commission.

<sup>16</sup> To free bridge commission.

<sup>17</sup> To department of commerce and navigation.

<sup>18</sup> Includes \$1,486,937 to New York City general fund.

<sup>19</sup> For prison camp expenses for road work.

<sup>20</sup> To county general fund in lieu of personal property taxes on motor vehicles.

<sup>21</sup> Includes \$105,996 for traffic signals.

be regarded as related to highway construction and maintenance. In Mississippi \$215,103 was allotted for carrying charges on bonds issued for the construction of sea walls which serve, in part, at least, to protect highways. Of this amount, \$117,817 was derived from a special gasoline tax levied for this purpose in three counties. In North Carolina \$124,587 was used to defray the expenses of prison camps maintained in connection with convict labor on roads.

Traffic control claimed a share of the motor-vehicle taxes. Twelve States assigned funds to the support of the State highway patrols; in addition, New Jersey allotted \$66,880 to the State traffic commission. The amount specifically assigned to traffic control, \$5,597,076, was 0.67 percent of the total motor-vehicle fees and gasoline taxes.

A total of \$74,907,028, or 8.93 percent, was devoted to purposes not related to roads and streets. Four

TABLE 13.—Motor vehicles registered and tax-paid in the United States in 1932, tabulated for each State by type of vehicle and class of service<sup>1</sup>

State	Passenger cars			Busses			Trucks and tractor trucks				Trailers and semitrailers				All vehicles	Motor-cycles	All vehicles including motor-cycles
	Private cars <sup>2</sup>	Taxicabs and other for-hire cars	All passenger cars	School <sup>3</sup>	Contract, including sight-seeing	Public carrier <sup>4</sup>	All busses	Privately owned and operated <sup>5</sup>	Contract carrier	Common carrier	All trucks and tractor trucks	Privately owned and operated <sup>5</sup>	Contract carrier	Common carrier			
Alabama.....	193,525	527	194,052	3	83	219	219	31,516	59	31,575	4,056	---	---	4,056	229,902	521	230,423
Arizona.....	79,835	141	79,976	---	---	186	272	14,151	536	14,687	1,803	---	---	1,803	96,791	309	97,100
Arkansas.....	113,157	250	113,407	790	---	187	187	21,832	---	22,019	2,332	6,472	---	2,332	139,887	153	139,740
California.....	1,738,385	367	1,738,752	---	---	1,580	2,370	232,133	1,743	234,177	61,853	---	---	62,753	2,037,685	8,338	2,046,023
Colorado.....	254,752	1,167	255,919	202	---	1,735	1,735	28,182	392	30,357	325	56	---	384	286,795	805	287,600
Connecticut.....	298,187	1,318	299,505	43,311	55	838	838	51,388	---	51,388	1,290	---	---	1,290	322,870	1,940	324,810
Delaware.....	43,311	1,318	44,629	---	---	162	364	8,666	---	8,666	8,666	---	---	8,666	53,015	233	53,248
Florida.....	246,392	1,318	247,710	152	188	412	467	36,855	---	37,273	7,375	78	---	7,453	293,543	857	294,393
Georgia.....	244,392	1,318	245,710	152	188	374	412	40,977	---	41,341	8,750	13	---	8,763	291,737	970	292,707
Idaho.....	81,913	---	81,913	---	---	96	96	12,869	---	12,869	1,006	---	---	1,006	106,094	306	106,400
Illinois.....	1,309,701	---	1,309,701	31	---	1,626	1,626	177,820	---	177,820	23,543	---	---	23,543	1,498,050	5,274	1,503,324
Indiana.....	674,230	---	674,230	2,077	---	2,330	2,330	67,079	---	67,079	7,333	241	---	7,574	685,779	1,805	687,584
Iowa.....	605,693	---	605,693	---	---	253	253	65,489	---	65,489	5,739	---	---	5,739	606,432	878	607,310
Kansas.....	432,724	81	432,805	16	---	185	201	28,710	---	28,710	2,453	---	---	2,453	435,256	804	436,056
Kentucky.....	298,179	1,118	299,297	---	---	391	391	41,757	---	41,757	4,136	---	---	4,136	303,434	1,473	304,907
Louisiana.....	195,083	1,517	196,600	---	---	424	424	36,203	---	36,203	4,136	---	---	4,136	175,560	664	176,224
Maine.....	133,837	1,271	135,108	---	---	113	113	36,203	---	36,203	4,136	---	---	4,136	140,296	1,444	141,740
Maryland.....	273,463	6,363	279,826	---	---	733	733	41,152	---	41,152	1,243	---	---	1,243	281,069	1,545	282,614
Massachusetts.....	694,357	---	694,357	643	1,708	1,650	4,001	87,777	---	87,777	691	426	---	701	802,434	1,553	803,987
Michigan.....	1,011,926	10,796	1,022,722	485	---	540	540	120,760	---	120,760	1,021	---	---	1,021	1,013,742	2,998	1,016,740
Minnesota.....	581,088	---	581,088	---	---	215	215	92,924	---	92,924	8,448	---	---	8,448	704,532	1,704	706,236
Mississippi.....	126,551	---	126,551	1,789	---	33	2,026	25,164	---	25,164	2,498	---	---	2,498	156,239	1,444	157,683
Missouri.....	617,995	---	617,995	---	---	200	200	98,151	---	98,151	74	---	---	74	618,129	1,545	619,674
Montana.....	88,611	---	88,611	---	---	71	71	20,144	---	20,144	297	---	---	297	89,106	198	90,004
Nebraska.....	322,335	65	322,390	---	---	220	220	52,294	---	52,294	161	---	---	161	323,045	834	323,879
Nevada.....	24,670	---	24,670	---	---	116	116	6,231	---	6,231	6,527	---	---	6,527	31,196	89	31,285
New Hampshire.....	87,531	---	87,531	115	---	306	306	17,378	---	17,378	1,286	---	---	1,286	88,817	905	89,722
New Jersey.....	716,491	4,485	720,976	---	---	5,202	5,202	128,604	---	128,604	3,038	---	---	3,038	724,011	5,257	729,268
New Mexico.....	61,546	167	61,713	---	---	139	139	14,826	---	14,826	194	---	---	194	61,910	226	62,136
New York.....	1,929,617	31,863	1,961,480	---	---	6,127	6,127	313,765	---	313,765	13,788	---	---	13,788	1,975,403	11,593	1,986,996
North Carolina.....	324,666	773	325,439	---	---	625	625	47,174	---	47,174	2,387	---	---	2,387	327,821	2,274	330,095
North Dakota.....	129,472	119	129,591	---	---	31	31	22,553	---	22,553	844	---	---	844	130,435	1,140	131,575
Ohio.....	1,420,470	---	1,420,470	---	---	1,360	1,360	104,436	---	104,436	647	---	---	647	1,421,830	5,680	1,427,510
Oklahoma.....	370,435	173	370,608	---	---	325	325	43,939	---	43,939	298	---	---	298	371,176	739	371,915
Oregon.....	223,407	855	224,262	57	---	287	287	29,281	---	29,281	4,790	---	---	4,790	229,057	1,422	230,479
Pennsylvania.....	1,440,072	2,855	1,442,927	2,703	---	3,423	3,423	216,334	---	216,334	7,555	---	---	7,555	1,450,482	9,805	1,460,287
Rhode Island.....	113,581	---	113,581	---	---	538	538	18,416	---	18,416	68	---	---	68	113,649	824	114,473
South Carolina.....	156,515	---	156,515	---	---	106	106	19,389	---	19,389	1,715	---	---	1,715	178,230	483	178,713
South Dakota.....	142,468	---	142,468	---	---	86	86	17,272	---	17,272	1,72	---	---	1,72	144,190	220	144,410
Tennessee.....	265,543	1,250	266,793	---	---	486	486	31,434	---	31,434	3,294	---	---	3,294	270,084	1,087	271,171
Texas.....	1,005,186	---	1,005,186	---	---	723	723	188,452	---	188,452	36,078	---	---	36,078	1,041,264	3,375	1,044,639
Utah.....	80,920	---	80,920	---	---	191	191	15,758	---	15,758	1,890	---	---	1,890	82,816	382	83,208
Vermont.....	69,020	7	69,027	2	---	146	146	8,283	---	8,283	479	---	---	479	70,506	479	71,005
Virginia.....	311,578	1,192	312,770	940	---	1,398	1,398	54,923	---	54,923	1,840	---	---	1,840	314,618	1,882	316,500
Washington.....	380,070	729	380,799	100	---	629	629	63,425	---	63,425	4,210	---	---	4,210	385,009	1,776	386,785
West Virginia.....	190,813	602	191,415	116	---	806	806	28,032	---	28,032	1,661	---	---	1,661	192,076	999	193,075
Wisconsin.....	587,454	---	587,454	---	---	447	447	106,047	---	106,047	1,310	---	---	1,310	588,764	2,204	590,968
Wyoming.....	46,150	---	46,150	63	---	87	87	9,682	---	9,682	15	---	---	15	46,165	116	46,281
District of Columbia.....	135,620	6,573	142,193	---	---	609	609	18,286	---	18,286	546	---	---	546	142,739	689	143,428
Total.....	20,759,140	77,222	20,836,362	9,813	3,314	36,325	49,452	3,141,490	16,869	3,229,315	406,431	5,008	3,837	415,276	24,530,405	89,197	24,619,602

<sup>1</sup> Publicly owned and tax-exempt vehicles were excluded from this tabulation in all cases where segregation was possible. Nominal payments by such vehicles are included in table 13.  
<sup>2</sup> Includes taxicabs and other for-hire cars in those States not reporting these vehicles separately, with the exception of California, which included taxicabs with light trucks. Also includes hearses and ambulances in 7 States which reported these vehicles separately.  
<sup>3</sup> Publicly owned school busses, tax-exempt or paying only nominal fees, not included.  
<sup>4</sup> Includes all busses reported in those States which did not separate these vehicles by class of service.  
<sup>5</sup> Includes for-hire carriers in those States not reporting such vehicles separately.  
<sup>6</sup> Includes common carriers.  
<sup>7</sup> Full trailers not permitted by law; semitrailers included with trucks.  
<sup>8</sup> No registration of trailers in 1932.

TABLE 14.—State registration fees<sup>1</sup> imposed on motor vehicles of different types and classes of service in 1933

State	Passenger cars			Busses			Trucks and tractor trucks			Trailers and semitrailers				All vehicles, including motor-cycles			
	Private cars	Taxicabs and other for-hire cars	All passenger cars	School	Contract, including sight-seeing	Public carrier	All busses	Privately owned and operated	Contract carrier	Common carrier	All trucks and tractor trucks	Privately owned and operated	Contract carrier		Common carrier	All trailers and semi-trailers	All vehicles
Alabama.....	\$2,404,936	\$19,160	\$2,424,096		\$3,921	\$22,749	\$22,749	\$612,570		\$1,940	\$614,510	\$36,068		\$36,068	\$3,097,423	\$2,068	
Arizona.....	279,809	2,847	282,656	\$60		15,089	19,089	241,916		21,649	263,565	22,845		24,345	589,663	1,780	
Arkansas.....	2,096,623	7,910	2,104,533			15,439	15,439	533,451			598,896	31,050		31,050	2,771,563	1,030	
California.....	5,249,998	1,883	5,251,881	26,884		27,574	27,574	2,552,641		4,308	2,556,949	340,640		340,640	8,175,622	26,033	
Colorado.....	1,252,463	53,628	1,306,091			58,242	58,242	342,956		84,833	1,388,934	5,000		5,000	1,710,112	1,610	
Connecticut.....	4,515,788	622,079	5,137,867	6,328		147,957	147,957	1,484,631			1,484,631	37,774		37,774	6,239,778	8,538	
Delaware.....	4,003,153	58,812	4,061,965			11,222	11,222	222,950			1,222,950	9,168		9,168	8,771,745	1,085	
Florida.....	2,965,342	9,310	2,974,652	4,706		105,226	116,568	1,000,291		29,355	1,000,329	33,717		33,717	5,325,329	6,415	
Georgia.....	1,192,461		1,192,461			24,166	24,166	307,399			3,793,503	33,949		33,949	3,793,769	4,853	
Illinois.....	4,164,349		4,164,349	128		230,391	230,391	3,840,364		18,867	3,840,364	116,496		116,496	16,299,445	16,440	
Iowa.....	9,130,146		9,130,146	31,155		68,648	68,648	1,455,292			1,455,292	28,288		28,288	5,816,577	6,640	
Kansas.....	2,935,843	2,386	2,938,229			4,502	4,502	831,315		15,134	1,799,018	24,642		24,642	11,021,095	5,170	
Kentucky.....	2,928,730	29,939	2,958,669			42,988	42,988	887,910		3,648	1,149,960	10,294		10,294	5,328,967	4,122	
Louisiana.....	1,728,663		1,728,663			10,920	10,920	661,711			1,891,558	133,460		133,460	4,175,945	3,323	
Maine.....	2,125,174		2,125,174			67,350	67,350	391,351		( <sup>2</sup> )	391,351	35,741		35,741	4,030,230	4,111	
Maryland.....	2,489,699		2,489,699	1,285		65,659	65,659	963,414			1,216,517	34,412		34,412	2,552,266	7,587	
Massachusetts.....	14,105,480	212,873	14,318,353			111,281	111,281	1,690,532		70,378	3,717,971	366,784		366,784	18,652,657	11,340	
Michigan.....	7,203,474		7,203,474	4,915		13,868	13,868	244,424		4,694	3,875,212	118,255		118,255	11,566,798	10,514	
Minnesota.....	5,587,443		5,587,443			308,621	308,621	9,953,274		29,466	9,953,274	201,113		201,113	36,767,103	46,703	
Missouri.....	8,036,791		8,036,791	20,580		43,672	43,672	1,396,502		10,660	1,396,502	130,533		130,533	18,074,659	23,413	
Montana.....	9,985,855		9,985,855			288,435	288,435	5,393,706		8,148	5,393,706	383,986		383,986	18,074,659	23,413	
Nebraska.....	2,756,438		2,756,438			19,390	19,390	491,459		2,596	491,459	12,658		12,658	3,279,239	4,786	
Nevada.....	2,220,474	785	2,221,259			16,625	16,625	539,500		4,999	539,500	18,252		18,252	11,577,312	10,514	
New Hampshire.....	7,203,474	71,345	7,274,819			298,512	298,512	3,875,212		4,694	3,875,212	118,255		118,255	11,566,798	10,514	
New Jersey.....	6,452		6,452			308,621	308,621	9,953,274		29,466	9,953,274	201,113		201,113	36,767,103	46,703	
New Mexico.....	26,304,095	519,160	26,823,255			43,672	43,672	1,396,502		10,660	1,396,502	130,533		130,533	18,074,659	23,413	
New York.....	4,838,630	42,231	4,880,861			288,435	288,435	5,393,706		8,148	5,393,706	383,986		383,986	18,074,659	23,413	
North Carolina.....	1,385,315	1,874	1,387,189			628	628	3,344,237		41,605	3,344,237	151,928		151,928	18,074,659	23,413	
North Dakota.....	1,763,706		1,763,706			288,435	288,435	5,393,706		8,148	5,393,706	383,986		383,986	18,074,659	23,413	
Ohio.....	3,683,703		3,683,703			605	605	963,341			963,341	13,353		13,353	4,663,482	6,015	
Oklahoma.....	4,789,094	4,742	4,793,836			59,145	59,145	813,625		33,936	813,625	10,854		10,854	5,977,429	5,606	
Pennsylvania.....	14,893,328	72,482	14,965,810	83,294		496,402	496,402	7,001,320			7,001,320	127,676		127,676	22,616,801	26,748	
Rhode Island.....	1,820,910	29,101	1,850,011			616	616	437,173			437,173	17,791		17,791	2,276,400	3,038	
South Carolina.....	1,810,814		1,810,814			1,007	1,007	464,816		( <sup>3</sup> )	464,816	13,415		13,415	2,417,407	1,964	
South Dakota.....	3,047,984		3,047,984			28,185	28,185	828,023		( <sup>4</sup> )	828,023	43,046		43,046	2,276,400	1,964	
Tennessee.....	8,488,045	20,511	8,508,556			85,841	85,841	3,791,451			3,791,451	3,870		3,870	12,786,354	14,685	
Texas.....	8,488,045		8,488,045			17,283	17,283	419,756		5,055	3,803,620	313,005		313,005	12,786,354	14,685	
Utah.....	1,480,761	170	1,480,931	144		37,245	37,245	594,205		21,470	594,205	77,387		77,387	1,922,733	3,016	
Vermont.....	1,830,253	37,935	1,868,188	4,700		2,822	2,822	817,073		13,685	817,073	47,566		47,566	5,984,847	7,748	
Virginia.....	1,115,380	12,924	1,128,304	3,763		2,822	2,822	817,073		13,685	817,073	47,566		47,566	5,984,847	7,748	
West Virginia.....	2,732,623	33,281	2,765,904	8,000		21,942	21,942	500,147		21,470	500,147	77,387		77,387	3,818,515	11,940	
Wisconsin.....	7,307,715		7,307,715	1,505		21,942	21,942	500,147		187	500,147	189,850		189,850	9,687,472	510	
Wyoming.....	476,215		476,215			88	88	189,850		5,992	189,850	346		346	168,466	689	
District of Columbia.....	135,650		135,650			213,357	213,357	330		213,357	330			213,357	330		
Total.....	213,357,330	1,368,148	214,725,478	211,633	157,395	3,047,669	3,416,697	68,113,536	2,540,207	551,025	71,204,768	3,134,711	228,877	151,737	292,862,288	326,889	293,189,177

<sup>1</sup> Payments tabulated correspond to numbers of vehicles listed in table 13, except where noted.  
<sup>2</sup> Public-carrier busses and common carriers of property in California were not required to pay registration fees. The figures given are estimated payments by 30 public-carrier busses, 274 common-carrier trucks, and 15 common-carrier trailers and semitrailers, which were adjudged common or public carriers for a part of their operations.  
<sup>3</sup> Public-carrier busses and common carriers of property in these States were not required to pay registration fees, but paid passenger-mile and ton-mile taxes, respectively, in lieu thereof.  
<sup>4</sup> Payments not segregated from those of private carriers.

TABLE 15.—Special State fees and taxes imposed on motor vehicles (chiefly for-hire carriers) in 1932; tabulated for each State by type of vehicle and class of service

State	Taxicabs and other cars for hire		Busses					Contract carriers of property		
			Contract, including sight-seeing		Public-carrier			Trucks and tractor trucks		
	Receipts taxes	Other special fees <sup>1</sup>	Mileage, ton-mile or passenger-mile taxes	Other special fees <sup>1</sup>	Mileage, ton-mile or passenger-mile taxes	Receipts taxes	Other special fees <sup>1</sup>	Mileage or ton-mile taxes	Receipts taxes	Other special fees <sup>1</sup>
Alabama					\$20,620		\$350			
Arizona	\$2,791					\$13,835				
Arkansas						8,795			\$26,669	
California						411,072				\$254
Colorado					28,349			\$16,981		
Connecticut						180,867				
Florida			\$2,489		54,466			18,166		
Georgia		\$4,988			52,706		13,175	3,666		2,381
Idaho						4,399				
Iowa					188,873					38,060
Kentucky					54,067		2,690	50,960		39,760
Maryland					175,694					71,354
Michigan							64,736			
Minnesota							425			
Mississippi					2,858					
Missouri							36,715			
Montana							710			2,970
Nevada		2,170					17,910			23,223
New Jersey						\$79,802				
New Mexico						32,393				
North Carolina							30,658			
North Dakota		815		\$302				652		
Ohio								92,019		\$171,844
Oklahoma			337	38	66,661			500	67,330	5,581
Oregon		96		4,324	86,453					39,760
South Carolina					28,896					4,820
South Dakota						4,200		500		
Tennessee <sup>6</sup>		12,063			72,288		18,773			
Texas							21,271			\$14,975
Utah			6,232		47,968			6,013		
Virginia						50,897				
Washington						34,166				
West Virginia					149,662					
Wisconsin					53,884		22,265	(7)		(7)
Wyoming					10,365		1,905	297		153
District of Columbia		95,074		3,650	47,726					
Total	2,791	115,206	9,058	8,314	1,253,731	738,889	294,596	163,413	26,669	556,263

<sup>1</sup> Includes franchise or special license fees, privilege taxes, permit fees, fees for certificates of convenience and necessity, etc.

<sup>2</sup> Occupation tax paid by "U-Drive-It" car companies.

<sup>3</sup> Mileage tax on interstate busses only.

<sup>4</sup> Payments of certificate fees included with undistributed fees.

<sup>5</sup> See column headed "Undistributed fees, etc." for payments by out-of-State property carriers.

<sup>6</sup> Payments of mileage tax, privilege tax, and inspection fees by property carriers given in column headed "Undistributed fees, etc."

<sup>7</sup> See column headed "Undistributed fees, etc."

States—Florida, Georgia, Louisiana, and Texas—alotted motor-vehicle or gasoline-tax funds to the support of schools, the total amount being \$14,522,113. New Jersey and New York devoted funds aggregating \$19,546,456 to unemployment relief. A total of \$39,652,339 in 11 States was paid into general funds, chiefly those of the States. In Louisiana \$830,072 was allocated to the boards of commissioners of the ports of New Orleans and Lake Charles Harbor, for use in payment of principal and interest on bonds and other payments in connection with the establishment of port facilities. The remaining items were small in amount, and were either of an administrative character or were offsets against the taxation of gasoline used for other than motor-vehicle purposes.

#### DIVERSION OF FUNDS GREATER IN 1933

The tendency toward the use of motor-vehicle and gasoline-tax receipts for purposes not related to highways was more strongly in evidence in 1933 than in 1932. A total of \$17,568,505 was allocated to the support of schools; \$29,997,563 was devoted to the relief of unemployment or other emergency relief; and \$32,971,664 was paid into State, county, and municipal general funds. Nearly \$10,000,000 was expended in the financing of debt obligations not related to highways, including \$1,100,000 transferred to the real estate

bond payment fund in North Dakota, \$2,262,625 devoted to retirement of State warrants in Oklahoma, \$4,042,235 paid on State debt obligations in Pennsylvania, \$1,404,569 in payments on rural credit bonds in South Dakota, and \$869,057 in payments on State emergency relief bonds in Washington. The sum of \$950,695 was devoted to harbor improvements and other purposes related to navigation.

The total of the items listed above is \$91,166,913, which is 11.1 percent of the total receipts in 1933 from State motor-vehicle fees and gasoline taxes, \$822,097,515. In addition to these specific diversions there were miscellaneous items aggregating \$3,065,002, a number of which were largely administrative in character. If these are added the total funds devoted to purposes not related to roads and streets in 1933 are found to have been \$94,231,915.

#### REGISTRATIONS AND RECEIPTS BY STATES TABULATED

The greater part of the foregoing discussion of State taxation of motor vehicles in 1932 was based on figures for the country as a whole, as it was impossible in the space available to give complete figures for individual States. In tables 13, 14, 15, and 16 registrations and payments of fees are given for each State. Table 13 lists all vehicles registered and tax-paid, by type of

TABLE 15.—Special State fees and taxes imposed on motor vehicles (chiefly for-hire carriers) in 1932; tabulated for each State by type of vehicle and class of service—Continued

State	Contract carriers of property— Continued.			Common carriers of property						Undistrib- uted fees, etc.	All special fees and taxes
	Trailers and semitrailers			Trucks and tractor trucks			Trailers and semitrailers				
	Mileage or ton-mile taxes	Receipts taxes	Other special fees <sup>1</sup>	Mileage or ton-mile taxes	Receipts taxes	Other special fees <sup>1</sup>	Mileage or ton-mile taxes	Receipts taxes	Other special fees <sup>1</sup>		
Alabama				\$3,109		\$706					\$24,785
Arizona					\$13,340			\$2,544			32,510
Arkansas		\$20,743									56,207
California					165,229			164,664			740,965
Colorado	\$2,311		\$36	34,931		2,168	\$7,708		\$247		92,985
Connecticut											180,867
Florida	1,605			44,932			8,480				130,138
Georgia	456		360	52,744		27,329	16,557		7,144	<sup>8</sup> \$7,527	189,033
Idaho					4,179			840			9,418
Iowa			1,585	91,265						<sup>9</sup> 20	319,803
Kansas										<sup>10</sup> 186,153	186,153
Kentucky				27,577		5,150					180,204
Maryland				67,758							243,452
Michigan			36,734			57,934			51,797		282,555
Minnesota						661			214		1,300
Mississippi										<sup>11</sup> 1,886	4,744
Missouri						50,321			11,052		98,088
Montana						800					4,480
Nevada			3,155			13,545			860		60,863
New Jersey											79,802
New Mexico				10,130		( <sup>12</sup> )	145		( <sup>12</sup> )	<sup>12</sup> 2,927	45,595
North Carolina					30,083			22,329			83,070
North Dakota						4,135					5,904
Ohio			7,950							<sup>13</sup> 28,316	300,129
Oklahoma				32,825		16,405					189,677
Oregon			7,453	99,785			15,416				394,415
Pennsylvania										<sup>14</sup> 33,946	33,946
South Carolina				6,283			2,863				38,042
South Dakota					23,471	13,500					46,491
Tennessee										<sup>15</sup> 31,951	135,075
Texas			<sup>16</sup> 11			<sup>16</sup> 11,234			<sup>16</sup> 209	<sup>16</sup> 22,898	70,598
Utah	46			3,594			610				64,463
Virginia					4,692			5,333			60,922
Washington					46,364			17,307			97,837
West Virginia											149,662
Wisconsin				33,774		29,226	33,897		2,044	<sup>17</sup> 248,588	423,678
Wyoming				9,296		4,161	243		66		26,486
District of Columbia											146,450
Total	4,418	20,743	57,284	518,003	287,358	237,275	85,919	213,017	73,633	564,212	5,230,792

<sup>1</sup> Includes franchise or special license fees, privilege taxes, permit fees, fees for certificates of convenience and necessity, etc.  
<sup>2</sup> Occupation tax on trucks operated by gas and oil companies.  
<sup>3</sup> Franchise fees imposed on 4 motorcycles operating as contract carriers.  
<sup>4</sup> Total payments of ton-mile tax by carriers of persons and property; not allocated by class of service.  
<sup>5</sup> Payments of mileage taxes by trucks not classified by class of service.  
<sup>6</sup> Payments of certificate fees not broken down as between passenger and property carriers: Contract carriers, \$1,756, common carriers, \$1,171.  
<sup>7</sup> Payments of franchise fees and corporation taxes by out-of-State carriers of property.  
<sup>8</sup> Payments of receipts taxes by for-hire carriers of persons and property; not allocated by class of service.  
<sup>9</sup> Includes payments by property carriers, mileage tax, \$23,669, privilege tax, \$6,587, inspection fees, \$1,695.  
<sup>10</sup> Payments of certificate fees by property carriers not allocated by type of vehicle; contract carriers, \$17,270, common carriers, \$5,628.  
<sup>11</sup> Includes \$213,533 in ton-mile taxes and \$33,355 in permit fees paid by contract and other commercial property carriers which were not segregated from private carriers; also \$1,700 in certificate fees paid by common carriers of property.

vehicle and class of service. The break-down by rated capacity is not given. Table 14 gives the corresponding payments of registration fees and table 15 the special fees paid by commercial carriers. In table 16

are given the miscellaneous fees paid by motor-vehicle owners, including operators' and chauffeurs' license fees, fees for certificates of title, transfer of registration fees, and miscellaneous small items.

OTHER TAXATION IMPOSED ON MOTOR VEHICLES IN 1932

COUNTY TAXES FOUND IN ONLY FIVE STATES

Aside from the levying of personal property taxes, the county unit of government has entered the field of motor-vehicle taxation to but a very limited extent. Special county fees and taxes were found to exist in only five States in 1932, and the collections reported were only \$1,703,455. The actual total collected by counties may have been somewhat greater, since replies were not received from all the counties to which questionnaires were sent; but it is believed that such charges exist only in the five States named. The data on county fees and taxes are given in table 17.

The most significant fact revealed by this table is that four of the States in which counties levy special taxes on motor vehicles—Alabama, Louisiana, Mississippi, and Tennessee—are in the South and are contiguous.

The remaining State, Nevada, yielded only \$3,781 in county motor-vehicle fees.

By far the largest single item was reported in Louisiana, where the parishes collected more than \$1,000,000 in gasoline taxes. Counties in Alabama and Mississippi also levied gasoline taxes, those in the latter State being used in financing the construction of sea walls. Registration fees or wheel taxes in two Tennessee counties yielded \$133,644. The remaining items, in Louisiana, Mississippi, and Nevada, were small.

MUNICIPAL TAXES MORE FREQUENTLY IMPOSED

Municipal fees and taxes (other than personal-property taxes) imposed on motor vehicles were found in 39 States in 1932. The total collections reported were \$14,157,822.

TABLE 16.—Miscellaneous State fees imposed on motor-vehicle owners in 1932

State	Operators' licenses				Certificates of title			Miscellaneous fees						Grand total
	Private	Chauffeur	Duplicates	Total	Issues and transfers	Duplicates	Total	Transfers or reregistrations	Duplicate registrations	Duplicate car plates	Temporary entry permits	Fees for official cars	Other fees	
Alabama		\$12,790		\$12,790										\$12,790
Arizona	\$4,158	9,356		13,514	\$43,278	\$1,215	\$44,493	\$13,464		\$581				\$6,004
Arkansas		17,376		17,376				2,239						78,056
California		131,860	\$32,881	164,741				801,823	\$49,512	13,541	\$4,930		110,183	1,144,730
Colorado	168,859	15,188		184,047				20,642		1,768	7,408		1,338	309,814
Connecticut	1,221,678	18,725	6,931	1,247,334				61,042	2,384		35,738		64,844	1,411,342
Delaware	103,509			103,509										123,115
Florida		2,921		2,921				8,816		52		\$41,008		161,056
Georgia		7,544		7,544			4,870	104,777		366			1,555	14,366
Idaho		754		754			2,663	2,663						10,824
Illinois		230,073		230,073				181,339			316			558,973
Indiana	16,753	12,988		29,741	132,244		132,244	150,962			60,808	13,764	72,987	341,652
Iowa	112,350	45,054	3,700	161,104	111,580		111,580	38,521	4,023		1,623			136,851
Kansas	10,090	11,642	1,250	22,982				50,402	9,204	1,644			220	84,452
Kentucky		26,905		26,905				69,662						98,422
Louisiana		59,250	146	59,396									1,614	59,805
Maine	380,996	84,687	1,008	466,691										467,273
Maryland	97,634	141,297		238,931	117,869		117,869	64,167	8,013					428,950
Massachusetts	2,174,712			2,174,712						7,146			5,627	2,224,389
Michigan	394,716	116,894	7,373	518,983	379,014	14,926	393,940	168,486		37,004	1,030			1,113,119
Minnesota		49,383	262	49,645						445	5,218	1,729		58,018
Mississippi											8,669	2,078		16,655
Missouri	19,191	107,178		126,369	267,029		267,029							393,398
Montana		670		670	24,996	357	25,353			1,551	46		13,773	41,809
Nebraska	4,967			4,967				28,152	10,898	1,667				45,684
Nevada					2,669	103	2,772			49		277		3,098
New Hampshire	180,283	102,463		282,746							13,399	604	2,263	299,012
New Jersey	3,251,282			3,251,282				298,436	20,525	6,878			35,840	3,612,961
New Mexico														
New York	1,322,046	1,646,352		2,968,398				816,671				143,971	293,093	4,222,133
North Carolina					69,487		69,487					9,460		78,947
North Dakota					27,704	1,134	28,838					463		29,521
Ohio		66,375		66,375				125,795	4,106	9,849				206,125
Oklahoma					148,274	4,974	153,248						2,101	155,349
Oregon	16,850	12,734	2,900	32,484				97,521	1,910	780	304		112	134,725
Pennsylvania	4,400,208		12,648	4,412,856	1,535,858	8,901	1,544,759	176,718	11,691	12,476			4,325	6,162,825
Rhode Island	341,417	1,512	2,710	345,639				46,176	1,492				1,245	396,630
South Carolina	103,477	1,020		104,497										114,013
South Dakota					8,832		8,832							18,780
Tennessee					16,004	2,534	18,538							623,460
Texas		230,352	2,395	232,747	586,851		586,851	35,028				1,581		383,488
Utah		4,081		4,081				106,440	1,033	17,918	400		24,950	20,125
Vermont	233,959			233,959				26,596						264,810
Virginia		57,903	50	57,953	161,051	16,207	177,258	57,391	5,691		260	3,995		298,306
Washington	61,744		800	62,544				960					6,192	69,696
West Virginia	34,718	68,627		103,345	89,474		89,474	25,065	1,233	6,951			900	226,968
Wisconsin	8,523		6,442	14,965	128,323		128,323					6,132		149,420
Wyoming					12,829		12,829							12,829
Dist. of Columbia	221,133	16,974	3,155	241,262	87,227	2,163	89,390	12,994	1,175					345,393
Total	14,885,253	3,310,898	84,651	18,280,802	4,278,282	61,957	4,340,239	3,392,888	171,227	233,472	212,585	91,784	640,773	27,363,770

TABLE 17.—County fees and taxes on motor vehicles in 1932, other than personal property taxes

State	Total fees and taxes	Registration or wheel taxes		Gasoline taxes		Franchise fees		Other fees and taxes	
		Number reporting	Amount	Number reporting	Amount	Number reporting	Amount	Number reporting	Amount
Alabama	\$273,255			6	\$273,255				
Louisiana	1,141,035			45	1,138,729	26	\$2,306		
Mississippi	151,740			3	117,817			2	\$33,923
Nevada	3,781					3	4,378		
Tennessee	133,644	2	\$133,644						
Total	1,703,455	2	133,644	54	1,529,801	29	6,087	2	33,923

1 Occupational license fees on taxicabs, jitneys, busses, drays, transfers, etc.  
 2 Special gasoline tax for road-protecting sea walls.  
 3 Road and bridge privilege tax.  
 4 On interstate bus and truck operations.

While the total sum reported can hardly include every dollar actually collected from motor-vehicle owners by municipalities, it is believed to be a fairly close approximation of the truth. Questionnaires were mailed to 9,128 municipalities, and follow-up queries were sent to those which failed to answer the first communication. The total number of municipalities submitting replies was 6,598, or 72 percent. Only 1,537, however, reported collections, the remainder, or 5,061, definitely stating

that they collected no special fees or taxes from motor-vehicle owners. The assumption might be made that the great majority of the municipalities not answering the questionnaire also had no fees of this character.

In table 18 there is given a detailed analysis of the questionnaire survey, showing for each State the number of municipalities queried, the number replying and the amounts of the fees reported.

The most prevalent type of fee, although not the most productive, was that of franchise taxes, frequently levied on taxicabs, busses, and for-hire trucks, and sometimes upon occupations in which motor vehicles are used, such as drayage and the like. Fees of this nature were reported in 34 States, and the total collected was \$2,053,086.

Missouri gasoline taxes were found in only six States, in widely separated regions of the South and West, but the total collected was \$2,602,083, of which Missouri alone accounted for 67 percent.

Registration fees imposed by municipalities amounted to \$9,100,795. Of this total the State of Illinois alone accounted for 68 percent. Other fees included such items as operators' and chauffeurs' licenses.

Among the 39 States in the table of municipal fees, the States of Illinois and Missouri far exceeded any others, and together represented about 65 percent of the national total.

TABLE 18.—Municipal fees and taxes on motor vehicles in 1932 other than personal property taxes

State	Total number of municipalities queried	Total number of municipalities replying	Number of municipalities reporting fees	Number of municipalities reporting no fees	Total fees reported	Registration fees		Gasoline taxes		Franchise fees		Other fees	
						Number reporting	Amount	Number reporting	Amount	Number reporting	Amount	Number reporting	Amount
Alabama	296	207	115	92	\$830,341	41	\$82,632	88	\$735,575	15	\$8,779	6	\$3,355
Arizona	34	1	1		180					1	180		
Arkansas	388	205	61	144	212,484	56	205,908			8	5,022	4	1,554
California	277	167	58	109	212,365					58	210,411	1	1,954
Colorado	246	232	28	204	28,821					26	28,061	4	760
Connecticut	<sup>1</sup> None												
Delaware	<sup>1</sup> None												
Florida	13	13	12	1	85,427			12	85,427				
Georgia	577	235	15	220	18,484	7	7,264			9	10,482	3	738
Idaho	<sup>1</sup> None												
Illinois	440	372	205	167	6,263,956	191	6,207,095			53	37,538	18	19,323
Indiana	284	263	36	227	105,382					36	105,382		
Iowa	186	160	28	132	7,239					28	6,508	5	731
Kansas	<sup>1</sup> None												
Kentucky	261	214	107	107	305,856	79	298,681			61	7,155	1	234,000
Louisiana	1	1	1		234,000								
Maine	<sup>1</sup> None												
Maryland	<sup>1</sup> None												
Massachusetts	<sup>1</sup> None												
Michigan	484	420	46	374	159,516					40	152,710	22	6,806
Minnesota	103	98	18	80	18,958					18	18,958		
Mississippi	306	126	15	111	446					15	446		
Missouri	769	359	148	211	2,971,873	126	1,150,280	36	1,743,644	35	77,949		
Montana	128	92	18	74	10,023					14	1,776	10	8,247
Nebraska	17	17	10	7	103,131	1	102,058			9	1,073		
Nevada	16	1	1		2,166			1	2,166				
New Hampshire	87	84	8	76	1,095					8	1,095		
New Jersey	572	566	115	451	883,185					114	882,188	6	997
New Mexico	57	49	10	39	37,082			5	29,398	5	1,065	5	6,619
New York	149	128	72	56	235,262					72	234,428	1	834
North Carolina	378	315	93	222	155,122	88	81,869					24	73,253
North Dakota	7	7	7		2,405					4	1,580	6	825
Ohio	56	42	34	8	62,337					34	44,591	7	17,716
Oklahoma	<sup>1</sup> None												
Oregon	190	160	29	131	20,804					29	20,804		
Pennsylvania	993	685	9	676	70,111					9	68,405	2	1,706
Rhode Island	7	1	1		4,965					1	4,380	1	525
South Carolina	42	36	6	30	20,034	6	7,542					1	12,492
South Dakota	13	11	11		1,303					11	1,303		
Tennessee	27	27	23	4	307,028	22	255,765			2	43,262	2	8,001
Texas	568	336	22	314	21,533					22	21,533		
Utah	2	2	2		15,153					2	13,761	2	1,392
Vermont	302	264	7	257	768					7	768		
Virginia	199	173	99	74	714,262	95	701,701			17	12,561		
Washington	66	54	27	27	16,682					27	16,682		
West Virginia	<sup>1</sup> None												
Wisconsin	502	399	34	365	11,518					34	11,518		
Wyoming	85	76	5	71	6,605			1	5,873	4	732		
Total	9,128	6,598	1,537	5,061	14,157,822	712	9,100,795	143	2,602,083	828	2,053,086	131	401,858

<sup>1</sup> Official statement from State sources indicated that no municipal fees or taxes were levied in 1932.

**PERSONAL-PROPERTY TAXES CHARGED AGAINST MOTOR VEHICLES**

Since personal property taxes upon motor vehicles are entirely distinct from the other types of fees and taxes paid by motor-vehicle owners, a special inquiry on this subject was undertaken in the several States simultaneously with the general statistical investigation. The statisticians in each State and field representatives of the Bureau cooperated in examining official reports, interviewing officials, and collecting basic information by means of questionnaires to local governmental authorities. In general, the response given to these questionnaires was excellent. With the resulting mass of information, extended by approximations based on the fact that taxes tend to be much the same in communities of the same type in the same general location, it was possible in practically all States to estimate with fair accuracy not only the total personal property taxes chargeable against motor vehicles, but also the division of the imposts among the governmental units levying them.

The information it was desired to obtain was the total personal-property tax levied by all governmental units in the year 1932. The data assembled did not all refer to that specific year. Because of a difference in the fiscal years of governmental units, and also because the

assessment, levy, and collection of a tax involve a considerable length of time, it is impossible to get uniform information. The assessed value may be fixed in 1 year and the tax collected in another. The same may be, and often is, true of the levy and collection of the tax. Even after the payment is due, another considerable period elapses before the tax becomes delinquent. Thus, it was only natural that, when information was collected from thousands of governmental subdivisions, there should be some confusion as to the item to be reported as the motor-vehicle property tax for 1932.

Comprehensive and adequate data were obtained from all States. While in most cases the complete figures could not be obtained, sufficient facts were supplied to make possible accurate estimates. For a number of States the figures are known to be entirely correct, as they were based on complete records.

The essential results of the research and analysis are set forth in tables 19, 20, and 21. The first of these tables is a summary of the principal facts brought out by the analysis. Table 20 gives a comparison among the various States of the personal property taxes levied and collected in 1932. Table 21 gives a break-down of the taxes collected, according to the tax-levying jurisdictions.

TABLE 19.—Summary of personal-property taxes levied and collected against motor vehicles in 1932

Method of taxation	Number of States	Number of vehicles licensed (1931)	Personal-property taxes		
			Levied	Per vehicle	Collected
Exempt.....	17	11,854,346	None	None	None
Special laws.....	6	1,700,930	\$9,921,000	\$5.83	\$9,921,000
General laws.....	26	12,258,827	34,160,000	2.79	25,959,000
Total.....	49	25,814,103	44,081,000	3.16	35,880,000

TABLE 20.—Personal-property taxes levied and collected against motor vehicles in 1932; totals and percentages tabulated by States

State	Taxes levied	Taxes collected	Percentage of total collected
Alabama.....	\$818,000	\$670,000	81.9
Arizona.....	797,000	730,000	91.5
Arkansas.....	259,000	192,000	74.2
California.....	8,534,000	5,285,000	61.9
Colorado.....	1,143,000	853,000	74.6
Connecticut.....	2,039,000	1,790,000	87.8
Delaware.....	None	None	None
District of Columbia.....	475,000	475,000	100.0
Florida.....	None	None	None
Georgia.....	694,000	542,000	78.1
Idaho.....	None	None	None
Illinois.....	2,190,000	1,855,000	84.7
Indiana.....	2,256,000	2,017,000	89.4
Iowa.....	None	None	None
Kansas.....	1,032,000	908,000	88.0
Kentucky.....	999,000	850,000	85.1
Louisiana.....	1,077,000	785,000	72.8
Maine.....	1,034,000	1,034,000	100.0
Maryland.....	1,487,000	1,487,000	100.0
Massachusetts.....	6,184,000	6,184,000	100.0
Michigan.....	None	None	None
Minnesota.....	None	None	None
Mississippi.....	559,000	447,000	80.0
Missouri.....	1,991,000	1,593,000	81.5
Montana.....	323,000	283,000	87.8
Nebraska.....	932,000	689,000	73.9
Nevada.....	135,000	133,000	98.1
New Hampshire.....	513,000	513,000	100.0
New Jersey.....	None	None	None
New Mexico.....	None	None	None
New York.....	None	None	None
North Carolina.....	840,000	639,000	76.0
North Dakota.....	None	None	None
Ohio.....	None	None	None
Oklahoma.....	None	None	None
Oregon.....	None	None	None
Pennsylvania.....	None	None	None
Rhode Island.....	977,000	853,000	87.4
South Carolina.....	449,000	362,000	80.6
South Dakota.....	None	None	None
Tennessee.....	133,000	133,000	100.0
Texas.....	2,486,000	1,715,000	69.0
Utah.....	357,000	268,000	75.0
Vermont.....	None	None	None
Virginia.....	699,000	516,000	73.7
Washington.....	1,897,000	1,393,000	65.0
West Virginia.....	544,000	458,000	84.3
Wisconsin.....	None	None	None
Wyoming.....	228,000	228,000	100.0
Total.....	44,081,000	35,880,000	81.4

ESSENTIAL FACTS ON PERSONAL-PROPERTY TAXATION OF MOTOR VEHICLES SUMMARIZED

Outstanding results of this phase of the survey may be summarized as follows:

1. In 1932 there were levied against motor vehicles in the United States personal-property taxes in the estimated amount of approximately \$44,081,000.
2. Of the motor vehicles subject to taxation, only about 60 per cent are listed on the tax rolls.
3. The percentage of motor vehicles placed upon the rolls apparently runs from less than 35 percent in the State of Illinois to over 90 percent in Arizona, Connecti-

TABLE 21.—Personal-property taxes collected on motor vehicles in 1932, grouped according to tax-levying jurisdictions

State	Tax-levying jurisdictions			
	State	County	Other	Total
Alabama.....	\$163,000	\$379,000	\$128,000	\$670,000
Arizona.....	208,000	385,000	137,000	730,000
Arkansas.....	44,000	38,000	110,000	192,000
California.....	None	3,873,000	1,412,000	5,285,000
Colorado.....	94,000	154,000	605,000	853,000
Connecticut.....	43,000	23,000	1,724,000	1,790,000
Delaware.....	None	None	None	None
District of Columbia <sup>1</sup> .....	None	None	475,000	475,000
Florida.....	None	None	None	None
Georgia.....	91,000	252,000	199,000	542,000
Idaho.....	None	None	None	None
Illinois.....	185,000	198,000	1,472,000	1,855,000
Indiana.....	205,000	340,000	1,472,000	2,017,000
Iowa.....	None	None	None	None
Kansas.....	78,000	199,000	631,000	908,000
Kentucky.....	149,000	199,000	502,000	850,000
Louisiana.....	148,000	233,000	404,000	785,000
Maine <sup>1</sup> .....	None	None	1,034,000	1,034,000
Maryland <sup>1</sup> .....	145,000	449,000	893,000	1,487,000
Massachusetts <sup>1</sup> .....	None	None	6,184,000	6,184,000
Michigan.....	None	None	None	None
Minnesota.....	None	None	None	None
Mississippi.....	82,000	155,000	210,000	447,000
Missouri.....	103,000	642,000	848,000	1,593,000
Montana.....	23,000	108,000	152,000	283,000
Nebraska.....	74,000	109,000	506,000	689,000
Nevada.....	28,000	80,000	25,000	133,000
New Hampshire <sup>1</sup> .....	None	None	513,000	513,000
New Jersey.....	None	None	None	None
New Mexico.....	None	None	None	None
New York.....	None	None	None	None
North Carolina.....	45,000	228,000	366,000	639,000
North Dakota.....	None	None	None	None
Ohio.....	None	None	None	None
Oklahoma.....	None	None	None	None
Oregon.....	None	None	None	None
Pennsylvania.....	None	None	None	None
Rhode Island.....	36,000	None	817,000	853,000
South Carolina.....	64,000	174,000	124,000	362,000
South Dakota.....	None	None	None	None
Tennessee.....	6,000	80,000	47,000	133,000
Texas.....	489,000	592,000	634,000	1,715,000
Utah.....	19,000	57,000	192,000	268,000
Vermont.....	None	None	None	None
Virginia.....	None	241,000	275,000	516,000
Washington.....	210,000	379,000	804,000	1,393,000
West Virginia.....	28,000	253,000	177,000	458,000
Wisconsin.....	None	None	None	None
Wyoming <sup>1</sup> .....	35,000	47,000	146,000	228,000
Total.....	2,795,000	9,867,000	23,218,000	35,880,000

<sup>1</sup> States having permit fee equivalent to personal-property tax.

cut, and Montana, and 100 percent in Maine, Maryland, Massachusetts, New Hampshire, Wyoming, and the District of Columbia.

4. There is a wide variation in the standard of assessment of motor vehicles in the various States.

5. Of the total tax levied, it is estimated that collections could not have exceeded \$35,880,000 and they may have been considerably below this figure.

6. Because of difficulties in assessment and collection, the personal-property tax as ordinarily administered is not effectively applied to motor vehicles.

7. Seventeen States, in which there were, in 1931, 11,834,346, or 45.9 percent of the total motor vehicles, exempt motor vehicles entirely from taxation as personal property.

8. There are 31 States and the District of Columbia in which motor vehicles are subject to some form of taxation as personal property. In these States there were 13,959,757 motor vehicles registered, or 54.1 percent of all vehicles licensed.

9. The mean average tax levied against these vehicles was \$3.16 and the median \$3.04.

10. Of the States imposing personal-property taxes against motor vehicles, five States and the District of Columbia make their levies under special laws which insure that all motor vehicles operating are charged with and pay the personal-property tax. The total so levied in 1932 was \$9,921,000. Located in these areas in 1931 were 1,700,930 motor vehicles or 6.6 percent of all the motor vehicles in the United States. This was an average of \$5.83 per vehicle.

11. In the remaining 26 States, containing 12,258,827, or 47.5 percent of all motor vehicles in 1931, an ineffective attempt is made to tax motor vehicles under general property tax laws, the tax so levied in 1932 being \$34,160,000, or \$2.79 per vehicle.

#### FEDERAL MANUFACTURERS' EXCISE TAXES RELATING TO MOTOR VEHICLES

The first Federal manufacturers' excise taxes which were paid by motorists were imposed under the United States Internal Revenue Act of 1918, effective October 4, 1917. These taxes lasted until repealed on May 29, 1928. During the period of 10 years and 8 months in which the taxes were in force, they accumulated to a total of \$1,119,931,631, or an average of about \$105,000,000 a year. There were three groups of such taxes, as follows: (1) Automobile trucks and wagons, 3 percent on sales; (2) other automobiles and motorcycles, 5 percent on sales; and (3) automobile parts and accessories, 5 percent on sales.

For an interval of 4 years the motor-vehicle owner was free from Federal excise taxes. The Revenue Act of 1932 (approved June 6 and effective June 7, 1932) imposed certain manufacturers' excise taxes affecting the purchases of owners of motor vehicles. The new law, however, imposed six groups of taxes, as follows: (1) A gasoline tax of 1 cent per gallon; (2) a tax on lubricating oils of 4 cents per gallon; (3) on tires and inner tubes, taxes of 2½ and 4 cents per pound, respectively; (4) on automobiles and motorcycles, 3 percent on sales; (5) on automobile trucks, 2 percent on sales; and (6) on automobile parts and accessories, 2 percent on sales. The tax on gasoline was increased to 1½ cents per gallon on June 17, 1933, and reverted to 1 cent on January 1, 1934.

These six taxes are paid, either directly or indirectly, by owners of motor vehicles, except for the fact that part of the excise taxes on gasoline and lubricating oils are paid by purchasers of these commodities for purposes other than for motor vehicles.

It will be observed that these taxes did not go into effect until June 7, 1932, with the result that the collections of 1932 represent but slightly more than a half-year period.

Table 22 gives a summary of the Federal excise-tax collections in 1932 and 1933, as reported and as adjusted to give as close approximations as possible to the amounts paid by the motorist in those years. The United States Bureau of Internal Revenue issues monthly reports showing the collections of the preceding month, which cover taxes assessed on the sales of the month preceding the month of collection. There is, in other words, a lag of a month between the collections as reported and the tax assessed on sales. The first column of figures in table 22 gives the collections of the calendar years 1932 and 1933. The second column gives the figures after adjustment by allowing for the lag of one month, as it was desired to show, as

TABLE 22.—Summary of Federal excise taxes relating to motor vehicles in 1932 and 1933

CALENDAR YEAR 1932			
Federal excise tax on—	Collections	Assessments <sup>1</sup>	Assessments adjusted <sup>2</sup>
Gasoline.....	\$62,839,827	\$74,181,720	\$68,247,200
Lubricating oil.....	7,067,419	8,388,330	8,000,000
Tires and inner tubes.....	7,545,071	8,112,487	8,112,487
Automobiles and motorcycles.....	4,221,263	4,990,000	4,990,000
Trucks.....	720,155	833,907	833,907
Parts and accessories.....	1,900,111	2,188,404	2,188,404
Total.....	84,293,846	98,700,848	92,377,998
CALENDAR YEAR 1933			
Gasoline.....	\$181,125,987	\$187,461,926	\$171,152,700
Lubricating oil.....	22,289,624	22,638,019	18,643,800
Tires and inner tubes.....	23,836,119	24,947,117	24,947,117
Automobiles and motorcycles.....	22,475,888	22,412,568	22,412,568
Trucks.....	3,046,827	3,123,958	3,123,958
Parts and accessories.....	4,443,072	4,544,666	4,544,666
Total.....	257,217,517	265,128,254	244,824,809

<sup>1</sup> Collections as reported advanced 1 month to allow for lag.

<sup>2</sup> Figures for gasoline- and oil-tax assessments adjusted to allow for non-motor-vehicle usage.

closely as practicable, the taxes as of the time when paid by the motorists. Thus the figures for the year 1932 include the collections of January 1933, and those for 1933 include the collections of January 1934.

The last column of table 22 gives the figures after adjustment for non-motor-vehicle use of gasoline and oil. In the case of gasoline the following method of approximation was used. From the data on gasoline taxes reported to the Bureau by the States it was found that in the last 6 months of 1932, 92 percent of the gasoline sold in the States was taxed by the States and sold for motor-vehicle use. For the calendar year 1933 the figure was 91.3 percent. It appeared reasonable to apply these percentages to the Federal gasoline-tax figures, although the gallonage taxed by the Federal Government was, in both periods, less than the gallonage reported to the Bureau as having been sold in the States.

In order to determine an approximate figure for the amount of the tax on lubricating oil assignable to motor vehicles, a ratio between the consumption of gasoline and the consumption of oil by motor vehicles was derived from results reported by other investigators,<sup>7</sup> and from the operating statistics of official cars used by employees of the Bureau of Public Roads in different parts of the country. The average ratio obtained as a result of this study was 28.24, i.e., 28.24 gallons of gasoline consumed to 1 gallon of oil. This ratio was not applied to the 1932 figures, as it was found to give inconsistent results, and a round figure of 2,000,000 gallons was assumed. In the case of the 1933 figures, the use of the ratio gave results which were entirely reasonable, indicating that approximately 82 percent of the oil taxed by the Federal Government was used by motor vehicles. In any event, however, the allowance for non-motor-vehicle use of oil is no more than a rough approximation.

The figures for the 2 years are not directly comparable, as those for 1932 cover only a little more than a half year, and the gasoline-tax rate was changed in 1933 from 1 to 1½ cents. Part of the increase, however,

<sup>7</sup> National Motor Truck Analysis, by General Motors Truck Co., 1929; Bulletin 106, Automobile Operating Costs and Mileage Studies and Bulletin 114, Statistics of Motor Truck Operation in Iowa, Iowa Experiment Station, 1931 and 1933; and a 1932 survey of the American Petroleum Institute, unpublished.

appears to be due to more effective administration of the law. The gallonage of gasoline taxed by the Federal Government in 1933 was much closer to the total reported by the States than was the case in the last half of 1932, indicating that early difficulties in enforcement have been eliminated. The same appears to be true in the case of the tax on lubricating oil.

#### PUBLIC BRIDGE AND FERRY TOLLS

The motorist in traveling over the highways must pay tolls on many bridges and ferries, both publicly controlled and privately owned. Although no data on this subject were obtained in the survey, it was decided to obtain, by a study of available records and reports, an approximation of the payments by motorists in 1932 in the form of public bridge and ferry tolls. The material obtained in this manner is by no means complete, and is probably several million dollars short of the true total.

On April 1, 1933, the number of toll bridges in operation was given as 317 in a list published by the American Toll Bridge Association in volume 1 of its 1933 proceedings. Among these there were 104 publicly owned bridges, of which 17 were interstate and

87 intrastate. Data on toll collections were obtained for 13 interstate bridges and 53 intrastate bridges, and also for a number of publicly owned ferries operated by the City of New York. Total collections reported were as follows:

Interstate bridges.....	\$14, 154, 667
Intrastate bridges.....	2, 451, 220
Ferries.....	1, 593, 537
Total.....	18, 199, 424

#### PUBLICATION ON ROADSIDE IMPROVEMENT AVAILABLE

A limited supply of Miscellaneous Publication No. 191, "Roadside Improvement", is available for distribution, and single copies may be obtained by addressing the Bureau of Public Roads.

The publication discusses briefly roadside improvement in the Public Works highway program, methods of planning roadside improvement, estimated costs, and shows typical plans for roadside improvement. Numerous illustrations showing methods of treatment under different conditions are presented.





**CURRENT STATUS OF UNITED STATES PUBLIC WORKS ROAD CONSTRUCTION**  
 AS PROVIDED BY SECTION 204 OF THE NATIONAL INDUSTRIAL RECOVERY ACT (1934 FUNDS) AND BY THE ACT OF JUNE 18, 1934 (1935 FUNDS)

CLASS 3.—PROJECTS ON SECONDARY OR FEEDER ROADS

AS OF SEPTEMBER 30, 1934

STATE	APPORTIONMENTS		COMPLETED				UNDER CONSTRUCTION				APPROVED FOR CONSTRUCTION				BALANCE OF FUNDS AVAILABLE FOR NEW PROJECTS			
	Sec. 204 of the Act of June 16, 1933 (1934 Fund)	Act of June 18, 1934 (1935 Fund)	Total Cost	1934 Public Works Funds	1935 Public Works Funds	Mileage	Estimated Total Cost	1934 Public Works Funds	1935 Public Works Funds	Mileage	1934 Public Works Funds	1935 Public Works Funds	Mileage	1934 Public Works Funds	1935 Public Works Funds	Mileage		
Alabama	2,072,033	1,064,960	89,081	89,081		5.7	1,482,769	1,482,769		114.5	490,024		29.3	19,159				
Arizona	525,423	998,032	114,319	114,319		7.2	413,007	406,045		35.1	55,095		.4	5,223				
Arkansas	1,484,634		162,798	162,798		43.6	1,057,917	1,057,917		105.2				206,914				
California	3,480,440	1,983,051	2,169,724	1,781,435		55.3	1,774,376	1,515,911		122.7	11,769		8.6	171,324				
Colorado	1,718,632	871,502	1,315,298	1,481,932		150.1	793,196	208,000		14.1				29,700				
Connecticut	659,120	420,868					664,916	659,120		14.3				181,700				
Delaware	448,463	230,849	20,825	20,825			260,326	260,326		14.0				167,712				
Florida	1,307,816	665,335	755,468	752,875		53.7	525,378	525,378		21.3				29,563				
Georgia	2,320,373	1,278,373	580,820	580,820		41.2	812,927	812,927		75.3	493,638		29.9	433,589				
Idaho	1,121,562	824,450	923,716	870,738		117.9	316,907	250,824		38.7			8.8	706,606				
Illinois	5,410,040	3,345,225	1,083,445	1,087,638		81.6	4,093,768	4,093,768		237.2	213,621		9.3	14,313				
Indiana	602,271						534,106	534,106		68.9	68,165		7.9					
Iowa	2,143,358	1,590,000	1,014,215	972,900		123.8	1,225,282	1,350,150		198.2	46,750		127.2	43,558				
Kansas	2,522,161	1,272,413	959,282	959,121		92.9	1,562,680	1,562,680		69.7				1,256,100				
Kentucky	1,571,260	1,356,409	1,416,057	1,407,032		172.9	429,277	427,892		42.8				3,001				
Louisiana	1,398,862	838,953	322,703	322,202		20.9	236,549	223,549		22.3	73,175		12.8	124,734				
Maine	842,479	427,897	906,666	846,235		78.4	878,570	878,570		25.6				818,953				
Maryland	891,132	1,067,934	486,235	486,235		37.6	377,919	363,993		25.5	18,643		13.5	22,262				
Massachusetts	488,185		367,128	367,128			102,613	102,613		3.7				18,444				
Michigan	3,184,957	1,613,142	713,750	713,750		57.2	2,397,130	2,382,230		168.8	5,000		1.0	88,077				
Minnesota	2,376,415	1,361,813	1,295,211	1,508,312		165.9	808,755	783,287		55.1			1.5	79,815				
Mississippi	1,744,669	764,022	2,156,918	2,156,918		443.1	1,246,917	1,246,917		130.2	323,876		36.0	173,276				
Missouri	2,822,272	1,265,122	1,174,924	1,174,924		216.7	1,353,954	1,353,954		57.1	4,361		282.3	69,537				
Montana	1,859,237	942,454	1,174,924	1,174,924			153,905	153,905		9.3				2,008				
Nebraska	1,957,240	991,091	760,551	759,498		124.4	1,662,622	1,649,997		162.1	13,239		2.1	32,745				
Nevada	1,136,479	852,000	960,180	960,180		96.7	1,999,060	1,286,692		12.5				34,368				
New Hampshire	477,460	242,365	352,652	311,428		18.3	1,655,556	1,655,556		7.4				199,199				
New Jersey	56,550	460,000	56,550	56,550		.5	510,192	510,192		81.3				26,014				
New Mexico	1,272,129	735,425	735,923	735,923		42.0	3,677,550	2,073,875		85.5				10,497				
New York	3,608,768	4,252,400	1,627,271	1,584,396										2,218,500				
North Carolina	2,380,573	1,210,525	1,115,121	1,114,722		84.0	975,782	975,782		137.8	240,732		20.4	49,336				
North Dakota	1,461,142	1,394,222	2,423,267	2,423,267		286.2	1,698,470	1,578,403		48.1	55,300		.1	314,282				
Ohio	3,971,418	1,966,653	2,423,267	2,423,267										1,966,653				
Oklahoma	2,304,199	1,171,295	1,411,988	1,408,034		93.3	1,835,593	1,835,593		175.8	45,872		8.5	14,700				
Oregon	1,526,724	774,454	1,171,613	1,070,482		83.2	533,275	432,280		25.3			9.9	3,962				
Pennsylvania	7,344,422	2,639,003	3,201,919	3,201,919		325.9	4,289,412	4,103,850		332.6	39,465		8.7	2,407,837				
Rhode Island	439,716	295,000	185,058	185,058		15.8	227,407	227,407		17.3				27,251				
South Carolina	1,364,791	692,739	474,065	474,065		45.3	768,414	768,414		99.3	100,851		15.4	21,462				
South Dakota	1,502,870	761,911	801,964	801,964		231.6	376,779	376,779		116.1	311,279		100.0	12,548				
Tennessee	2,123,155	1,075,748	842,318	835,182		69.1	1,035,213	1,035,213		75.4	112,129		2.4	140,631				
Texas	6,012,518	3,749,970	4,195,331	4,195,331		990.1	2,290,291	2,075,950		176.5	112,500		14.0	74,098				
Utah	1,048,677	533,173	811,007	811,007		133.1	365,511	285,945		71.1				11,022				
Vermont	438,880	241,354	158,568	150,200		11.5	227,428	228,680		25.2				159,761				
Virginia	1,699,920	941,347	1,137,662	1,095,192		155.2	675,744	546,855		42.7	12,950		4.6	44,923				
Washington	1,080,673	776,603	665,204	647,945		45.4	404,261	404,261		14.3	27,739		3.9	727				
West Virginia	1,118,559	570,083	1,118,559	1,118,559		4.4	865,194	868,116		49.5	64,518		3.2	79,107				
Wisconsin	2,425,385	1,482,551	1,811,660	1,706,521		121.9	527,251	508,621		45.8	209,821		10.5	59,918				
Wyoming	1,125,332	571,928	956,796	935,694		139.3	132,948	129,720		8.9				556,576				
District of Columbia	990,234	730,382	476,040	476,040		5.0	572,104	466,117		3.5			1.7	6,077				
Hawaii	157,106	351,000					177,718	177,718		4.9				9,388				
<b>TOTALS</b>	<b>92,539,561</b>	<b>49,400,172</b>	<b>44,774,799</b>	<b>43,037,366</b>		<b>4,881.2</b>	<b>47,626,131</b>	<b>43,207,595</b>		<b>2,102,142</b>	<b>3,553,903</b>		<b>1,268.5</b>	<b>2,760,657</b>		<b>42,659,127</b>		

**CURRENT STATUS OF UNITED STATES PUBLIC WORKS ROAD CONSTRUCTION**

AS PROVIDED BY SECTION 204 OF THE NATIONAL INDUSTRIAL RECOVERY ACT (1934 FUNDS) AND BY THE ACT OF JUNE 18, 1934 (1935 FUNDS)

SUMMARY OF CLASSES 1, 2, AND 3.

AS OF SEPTEMBER 30, 1934

STATE	APPORTIONMENTS		COMPLETED				UNDER CONSTRUCTION				APPROVED FOR CONSTRUCTION				BALANCE OF FUNDS AVAILABLE FOR NEW PROJECTS		
	Sec. 204 of the Act of June 16, 1933 (1934 Fund)	Act of June 18, 1934 (1935 Fund)	Total Cost	1934 Public Works Funds	1935 Public Works Funds	Mileage	Estimated Total Cost	1934 Public Works Funds	1935 Public Works Funds	Mileage	1934 Public Works Funds	1935 Public Works Funds	Mileage	1934 Public Works Funds	1935 Public Works Funds	BALANCE OF FUNDS AVAILABLE FOR NEW PROJECTS	
																1934 Public Works Funds	1935 Public Works Funds
Alabama	8,370,133	4,259,842	3,019,677	1,965,847	119.1	7,404,144	5,443,943	648,042	434.8	67,956	67,956	67.9	132,101	4,191,865	256,344		
Arizona	5,211,960	2,641,935	3,499,889	3,391,260	229.9	1,071,656	1,590,981	138,121	120.4	572,921	572,921	30.6	91,598	2,069,014	2,661,343		
Arkansas	6,748,335	3,422,049	2,134,864	1,798,075	108.5	4,550,736	4,182,780	479,182	255.0			4.2	288,297	3,428,049	1,454,868		
California	15,607,354	7,932,206	10,272,849	8,223,925	278.9	9,752,487	7,003,566	404,829	268.5	267,904	267,904	4.8	368,494	2,684,302	2,058,699		
Colorado	6,874,530	3,486,006	6,095,051	5,952,210	322.0	1,756,481	851,597	173.7	44.0	1,022,478	1,022,478	60.9	67,601	2,058,699	1,454,868		
Connecticut	2,865,740	1,454,868	915,469	911,933	11.5	2,130,366	1,953,223										
Delaware	1,819,088	923,395	480,619	480,619	8.7	1,150,134	1,150,134			667,052	667,052	58.8	183,791	256,344			
Florida	5,231,834	2,601,415	4,066,303	3,177,434	148.2	3,956,998	3,812,815			31,597	31,597	1.4	102,120	2,661,343			
Georgia	10,091,185	5,113,491	3,569,280	3,553,023	224.3	3,956,998	3,812,815			919,194	919,194	44.4	1,746,155	5,113,491			
Idaho	4,486,249	2,277,486	2,710,512	2,600,538	265.2	1,811,940	1,693,464	66,886	92.1	38,585	38,585	14.9	153,661	2,038,583			
Illinois	17,570,770	8,921,401	4,318,278	4,304,227	132.0	12,330,666	12,104,746			1,045,899	1,045,899	17.4	115,839	8,820,459			
Indiana	10,037,843	5,088,953	2,076,041	2,074,369	70.8	6,609,715	6,605,028			611,860	611,860	15.7	746,586	5,088,953			
Iowa	10,095,660	5,118,351	5,395,243	5,170,115	338.8	5,276,259	4,493,760	330,400	318.3	324,450	324,450	247.8	66,915	3,314,561			
Kansas	10,089,604	5,117,675	6,660,246	6,647,509	184.0	3,868,600	3,436,768			1,692,808	1,692,808	322.1	140,073	3,424,867			
Kentucky	7,517,359	3,818,311	4,341,365	4,295,499	372.3	2,650,232	2,463,578			618,210	618,210	88.9		3,098,501			
Louisiana	5,828,591	2,963,932	1,927,716	1,956,203	74.6	3,824,380	3,291,136			155,453	155,453	15.0	425,799	2,963,932			
Maine	3,369,917	1,711,586	2,253,385	2,155,836	59.2	1,382,857	1,027,378	335,896	44.9	889,345	889,345	6.8	186,703	1,186,284			
Maryland	3,584,587	1,810,958	1,289,727	1,235,958	110.6	1,107,016	1,093,090			38.3	38.3	27.7	346,134	1,498,954			
Massachusetts	6,597,100	3,350,474	1,576,414	1,205,618	44.9	5,177,603	5,048,927			24.6	127,088	22.7	215,466	3,350,474			
Michigan	12,736,227	6,452,568	3,126,345	3,124,195	134.3	9,474,330	9,267,630	130,300	402.8	295,075	295,075	125.8	88,327	5,684,268			
Minnesota	10,656,569	5,425,551	7,151,309	7,059,027	950.5	4,320,770	2,950,600	1,370,170	210.1	13,327	13,327	125.8	633,616	3,062,283			
Mississippi	6,978,675	3,540,227	2,166,630	1,300,978	104.6	5,926,977	3,921,367			346.8	875,755	113.2	860,575	2,695,787			
Missouri	12,180,306	6,173,740	7,020,434	6,161,460	634.8	5,353,217	4,611,288	292,213	132.3	260,946	260,946	242.3	846,612	4,693,086			
Montana	7,439,748	3,769,734	6,750,530	6,466,318	594.5	1,324,512	905,360			99.0	45,318	97.8	22,732	2,804,913			
Nebraska	7,828,961	3,964,364	4,581,948	3,808,891	392.2	5,028,902	3,939,915	420,447	296.1	907,074	907,074	173.3	79,579	2,636,844			
Nevada	4,459,182	2,229,122	3,177,323	3,247,323	315.1	3,084,632	1,288,132	67.7	16.1	131,259	131,259	49.2	57,153	1,868,304			
New Hampshire	1,999,189	989,182	1,475,386	1,443,142	38.1	598,191	480,184	46,202				2.4	16,314	881,615			
New Jersey	6,346,039	3,220,879	1,263,279	1,262,382	20.5	5,121,593	4,912,495	46,202	49.9			69.3	171,162	3,220,879			
New Mexico	5,732,935	2,941,700	4,682,802	4,518,872	441.5	1,021,605	1,021,605			90.6		83.9	232,458	2,007,138			
New York	22,530,101	11,347,921	7,100,899	6,367,573	143.7	21,397,002	15,749,120	1,938,500	328.6				213,408	5,850,021			
North Carolina	9,522,293	4,840,941	4,687,435	4,221,030	351.2	4,088,473	3,843,297			559.5	871,258	102.6	566,608	4,284,173			
North Dakota	5,804,448	2,865,012	3,465,574	3,248,481	940.5	1,454,096	1,293,961			288.3	882,839	227.2	419,166	2,844,759			
Ohio	15,484,592	7,865,012	10,465,351	9,728,236	425.6	6,133,470	5,605,763			1,303.5	55,500	.1	95,092	7,865,012			
Oklahoma	9,216,798	4,685,180	4,450,946	4,407,651	339.3	4,135,013	4,094,739			273.2	468,400	25.9	286,028	4,685,180			
Oregon	6,186,896	3,097,814	4,755,264	4,393,326	245.1	1,781,889	1,607,016			74.1	44,460	50.9	62,095	1,693,963			
Pennsylvania	18,891,604	9,590,788	8,234,174	8,169,747	495.7	10,497,072	9,939,135	102,899	413.0	595,860	595,860	54.7	186,363	7,393,149			
Rhode Island	1,998,708	1,014,572	1,574,126	1,511,269	42.8	375,613	375,613			18.3	180,667	27.5	111,816	1,014,572			
South Carolina	5,459,155	2,770,924	1,628,294	1,628,294	116.4	3,414,052	3,414,052			361.5	634,487	145.6	236,185	2,582,811			
South Dakota	6,011,479	3,047,643	3,179,877	3,081,124	533.1	2,355,019	1,994,292						301,576	3,047,643			
Tennessee	4,474,234	2,280,335	1,360,275	1,360,275	43.8	3,117,003	2,906,240	159,876	107.9	73,837	73,837	25.3	133,882	1,491,961			
Texas	24,244,024	12,891,253	6,689,591	6,487,552	310.9	2,940,337	2,867,011			137.4	273,950	26.0	96,368	4,518,866			
Utah	4,194,708	2,132,691	3,311,133	3,204,161	530.5	1,735,336	1,247,914	435,571	178.4			47.9	67,492	1,459,601			
Vermont	1,857,573	948,007	975,806	955,814	42.1	985,076	901,068			54.0	10,670	15.7	409,704	703,213			
Virginia	7,416,757	3,708,367	4,706,225	4,500,290	299.2	2,455,428	2,130,028			70.0	296,735	28.5	409,704	3,441,696			
Washington	6,115,867	3,106,412	4,081,417	4,042,477	151.7	2,116,353	1,995,300	163,093	55.5			12.7	44,351	2,616,784			
West Virginia	4,474,234	2,280,335	1,360,275	1,360,275	43.8	3,117,003	2,906,240	159,876	107.9	73,837	73,837	25.3	133,882	1,491,961			
Wisconsin	9,724,861	4,941,837	6,689,591	6,487,552	310.9	2,940,337	2,867,011			137.4	273,950	26.0	96,368	4,518,866			
Wyoming	4,501,327	2,287,712	3,419,234	3,185,924	530.5	1,735,336	1,247,914	435,571	178.4			47.9	67,492	1,459,601			
District of Columbia	1,918,469	975,842	1,086,051	1,086,051	9.0	1,095,448	826,114	269,337	5.7	66,000	66,000	2.2	6,307	546,865			
Hawaii	1,871,062	949,778	1,961,115	1,444,003	10.4	2,002,190	1,649,631			33.4		.7	11,428	949,778			
TOTALS	394,000,000	200,000,000	203,543,864	189,866,366	13,902.6	203,026,793	176,997,143	6,918,203	8,631.3	13,838,786	24,985,001	2,866.4	13,277,745	168,096,796			



